Microfinance of Housing. The case of Nicaragua

Staal, Elisa Ninke

Rijksuniversiteit Groningen

Wetenschapswinkel

voor Economie

RuG

Microfinance of Housing

The Case of Nicarague

Elisa Ninke Staal

EC 132

2003

Microfinance of Housing,

The Case of Nicaragua

Elisa Ninke Staal

Groningen, February 2003

Groningen University Economic Science Shop
Coördinators: drs. E. Kamphuis and drs. F.J. Sijtsma
Secretariat: H.W. Janssen
Supervisory lecturer: dr. C.L.M. Hermes and dr K. van Veen
Inquirers: Stedenband Groningen – San Carlos and Housing Association Nijestee

Address:
Groningen University Economics Science Shop
PO box 800
9700 AV Groningen, The Netherlands
tel: 050-3633754
fax: 050-3637337
E-mail: wewi@eco.rug.nl
Internet: http://www.eco.rug.nl/wewi

CIP-GEGEVENS KONINKLIJKE BIBLIOTHEEK, DEN HAAG

Microfinance of Housing, The Case of Nicaragua, E.N. Staal, Groningen: Groningen University Economic Science Shop (Publications of Groningen University Economic Science Shop, EC 132)
With references.

ISBN 90-5803-028-8

NUGI 682

Druk: Universiteitsdrukkerij Rijksuniversiteit Groningen

Acknowledgements

I would especially like to thank the lecturer Niels Hermes, from the Faculty of Management and Organization of the University of Groningen, for his clear reviews on the first drafts of my research and his guidance. I also would like to thank the lecturers Kees van Veen from the Faculty of Management and Organization and Robert Lensink from the Faculty of Economics of the University of Groningen, for their supervision and guidance of my research.
I am grateful to Elise Kamphuis from the Science Shop of Economics of the Faculty of Economics of the University of Groningen, for giving me the opportunity to conduct this research.
I would like to express my gratitude towards Muriel Duindam from the Stedenband Groningen-San Carlos for her guidance towards my visit to Nicaragua and to the Housing Assocation Nijestee for financing this project.
Further, I am grateful to the executives of the organizations and the microfinance of housing programs in Nicaragua, who were willing to answer all of our questions. My knowledge of microfinance of housing is partly derived from them.

Groningen, January, 2003

Lisa Staal

Abstract and recommendations

The Stedenband Groningen-San Carlos and Housing Association Nijestee asked the Science Shop of Economics at the University of Groningen to research how projects for financial support for housebuilding and renovation in the relatively poor city of San Carlos in Nicaragua could be designed.

Microfinance and housebuilding

The size of loans to the poor are on average relatively small; in the literature such small-scale financial services to the poor are commonly referred to as microfinance. Small-scale financial services, credits and savings of microfinance programs are usually provided at the local level, to both people in the rural and urban areas operating small enterprises. The essence of microfinance is that the poor can borrow small amounts of money, without the requirement of standard collateral or a fixed income, for investment in their enterprises.

Recently, some microfinance institutions in a.o Nicagaragua started to notice that the poor that borrowed from microfinance programs often used these loans to improve their houses instead of putting the money in their small enterprises. As a consequence the microfinance lending institutions in Nicaragua started to offer microfinance of housing programs. Such finance is a rather new development, and addresses the *shelter needs* of the rural and urban poor in developing countries that do not have access to traditional mortgage finance. Such loans usually range from $100 to $5000, and are used for home improvement or the construction of new basic core units. There is some evidence that small improvements to their housing conditions financed with the help of relatively short loans may have a large impact on the survival strategies of low-income households. Evidence learns that people dependent on survival strategies generally want to keep their indebtedness as short as possible to also be able to cope with other pressing needs such as food, education of the children and medicines.

Nicaragua

In 2001, in Nicaragua, 58% of households lived overcrowded, i.e. with two or more people living in one room. Some 40% of all housing units were constructed with scrap or other impermanent materials. Overall, approximately 70% of the housing stock required some work, while half this number required major work or replacement. These facts demonstrate the urgent need for improving housing conditions of the Nicaraguan people.

The Nicaraguan housing market on the whole is largely underdeveloped. In part this is due to the relatively high prices in terms of local purchasing power. To illustrate, a lowest cost commercially produced house that was offered on the market in the year 2000 was a 36 m2 “basic” house with minimum services which was sold for $11,000. This may explain why in the same year the number of mortgaged loans increased to about 1000 only compared to a new urban household formation of more

than thirty times this number! In other words, approximately 85% of the households in Nicaragua simply cannot afford a commercially built unit.

The presently existing commercial mortgage lenders usually are unwilling to lend to the lower-income households segment, because small loans are on the whole much less profitable than larger ones. An estimated 85% of the Nicaraguan households house themselves through the informal sector; they acquire their housing over time through a process of progressive building, upgrading, and accessing basic services. Self-help building and development costs in Nicaragua are very low. With informal lending, people usually pay rates up to and exceeding 150-200% interest per year, spiralling many into a never-ending cycle of debt. Although it costs only some $2000 to build a self-help construction of about 36 m2, the lower-income households have so little income and wealth that they still even cannot afford to construct such a unit. For those poor parts of the population, relatively small loans for the improvement of their houses via microfinance can be a major vehicle for improving their daily living conditions.

The research

The research described in this report focuses on studying how credit organizations that offer microfinance of housing programs to the low- and moderate-income households in Nicaragua have organized and structured their lending practice to deal with the issues of: screening, monitoring and enforcement of their loans (which are the main determinants of their costs of lending), obviously within the boundaries of the main objectives of their organization. Two students of the University of Groningen, Lisa Staal (Management and Organizations) and Melchior Bauer (Economics), visited Nicaragua in 2002 during the spring in order to analyze the behavior of various Nicaraguan microcredit organizations. They interviewed the executives of the microcredit organizations: CEPAD, HABITAT, ACODEP, CEPRODEL and AFODENIC, in order to discusses: the main characteristics of their loan products; their main objectives; the extent to which the programs achieved the main objectives; and how they dealt with screening, monitoring and enforcement. The present report has been drafted by Lisa Staal; Melchior Bauer developed an economic model to analyse microfinance and housing, which exercise has been reported in an other study commissioned by the Science Shop of Economics[1].

[1] This report can be ordered by the Science Shop. For address, see page 1 of this report.

The research revealed that the following factors in Nicaragua may increase the non-repayment risk of loans:

- The majority of the lower-income households work in the informal sector and do not earn a fixed income. Therefore, it is very hard to verify their incomes.
- Full-legal land title is often not available to low-and moderate-income households in Nicaragua. This hinders the enforcement process.
- The legal system is cumbersome, and enforcement of judicial determinations is uncertain and sometimes subject to non-judicial considerations. The jurisdiction can be subjected to corruption and political influence.
- The maximum amount a household monthly can afford to spend on repayment and interest is 20% of its income. Therefore a household with a year income of $400 can monthly spend $7 on interest and payment.
- During the Sandinista regime (1979-1990) the government made loans to rural and urban cooperatives through state banks and governmental organizations. Since the government provided the loans, they were often regarded as grants and repayment was not strictly enforced.

Despite these factors all the investigated microfinance of housing programs, except for HABITAT, are successful in maintaining an operational sustainability. The interest rate they charged differ from 0% (HABITAT) to almost the market interest rate of 18% (ACODEP). All the institutions needed a subsidy to start with. The loan product of Ceprodel with a monthly burden on interest and repayment for a household of $7.5 seemed to reach the majority of low-income households. This may imply that its main objective is impact. The monthly amount the clients of the four other institutions have pay is higher and seemed to be only affordable for incomes above the poverty line. This could indicate that the main objective of these programs does not incline towards impact but more towards outreach.

Recommandations

The results of the research provide the following recommendations to set up a new microfinance of housing initiative in San Carlos or elsewhere in Nicaragua:

1. *Determine the main objective and design the loan product and its features according to it*

When the organization aims to reach the poorest households, it could consider offering improvement-housing loan products with the smallest loan sizes as possible to increase the depth of outreach. An average low-income household can only afford a smaller improvement-housing loan. Loans for the construction of new units could be offered to the moderate- and higher-moderate-income households that can afford a long-term credit loan.

When the main objective is to reach out to the poor in a sustainable way, the emphasis should also be placed on efficiency, i.e. an interest rate that is high enough to cover the operating costs and a high repayment rate. This could be at cost of reaching the poorest households, but might be advisable because sustainability is the means to increase the outreach of a program: i.e. the endurance of a program and the possibility to expand the lending capital when the organization is able to generate a profit.

2. *Make clear during the first contact that the loans are not donations but must be repaid, otherwise sanctions will be taken*

This is particularly important for organizations involved in more than lending and are known for their social programs and missions. In view of the history that loans were often seen as grants during the Sandinista regime, the danger exists that clients may be inclined to view the organizations as benevolent agencies and not repay the loan. In that case it is very important that sanctions will be taken. Especially in small communities (such as in San Carlos), the neighborhood knows when a client is in default. When the collateral of the delinquent is not be retained or no other sanctions are taken, other borrowers have little incentives to repay because of the lack of enforcement. In the most cases it is sufficient to put psychological pressure by sending warning letters to the borrower and the co-signer. Lack of enforcement will increase the moral hazard and decrease the repayment rate.

3. *Demand a collateral or a co-signer*

Since a few years legal land titles are settled in San Carlos, so land and house could be used as a collateral. When full-legal land titles are not available to low-and moderate-income households, as is often the case in Nicaragua, para-legal rights could be used as a collateral substitute to apply psychological pressure on the borrower. In addition, the house, a co-signer or for example the furniture could be used. For the smaller loans, other forms of collateral could be used, such as a co-signer or electrical machinery.

4. Use an internal recommendation system as a mechanism to bring in new borrowers

This screening mechanism could reduce the risk of adverse selection and could be used as a mechanism to bring in new borrowers.

5. Require a minimum residence within the same place

This condition lowers adverse selection and moral hazard. The possibility and risk that the client will move in the near future is an undesirable activity for the lender, and makes it less likely that the loan will be repaid. A minimum residence could also be necessary to make sure that the community members have enough knowledge about the borrower to improve the screening process.

6. Make use of a progressive lending process

Progressive lending provides the lender with the opportunity to test the borrowers in the beginning period when loan sizes are still small so that bad credit risks could be screened out before the loan size is increased. During this process the lender could also build a relationship with the borrower.

7. Make use of group meetings

Meeting with groups of borrowers at scheduled times and at scheduled locations could reduce costs on visits to the borrowers. When repayment and interests are collected during the meetings, the meetings could also be use to take advantage of social group pressure.

It is not advisable to introduce joint liability. The large loans sizes and long loan terms of housing loans (compared to micro enterprise loans) would impose too much risk on the other group members.

8. Make use of mandatory savings

A new program could require potential borrowers to save for a certain period (e.g. 6 months to a year) at a rate equivalent to their future repayment before the borrower could obtain the loan. This savings period gives the organization the opportunity to build a relationship with the borrower. By establishing a relationship during a savings period, an organization can learn more about the borrower's characteristics that can lead to a decrease in screening and monitoring costs. The savings built up during this period can be used as collateral.

Table of contents

Chapter 0 Introduction

The Stedenband Groningen-San Carlos and Housing Association Nijestee wanted to start a housebuildingproject for the poor in San Carlos, Nicaragua. San Carlos is a small city in the Eastern part of Nicaragua. In San Carlos live more than 28,000 people, about 75% of them live below the per capita poverty line of $400 per year, of which almost 77% in the rural areas. More than one third lives below the per capita extreme poverty line of $212 per year, of which 80% in the rural areas. The Stedenband is a governmental organization, founded in the year 1986, and a cooperation between the two cities Groningen, the Netherlands, and San Carlos, Nicaragua. The aim of the cooperation is to improve the living conditions of the people in San Carlos through different projects. For example, last year it started a project to enlighten the people of San Carlos on nutritional facts and on improving their nutritional habits, and in 2001, the Stedenband started a project to build a telephone exchange. The aim of this housebuildingproject is not to donate the houses to the poor, but to lend to the poor for housing from a fund. The Stedenband Groningen-San Carlos, however, is currently not cooperating with any financial institutions in San Carlos and they have got no experience with lending or with the housing market in Nicaragua.
That is why they asked the Science Shop of the University of Groningen to investigate how projects for the financial support for housebuilding in San Carlos can be designed. Two students of the University of Groningen conduct the research: Lisa Staal (management and organization) and Melchior Bauer (economics).

§ 0.1 Microfinance

Loans that are made to the poor are relatively small and in the existing literature small-scale financial services to the poor are referred to as microfinance. The small-scale financial services, credits and savings of microfinance programs are provided at the local level of developing countries to people in the rural and urban areas, who operate small enterprises. Banks generally do not want to invest in financing these enterprises due to characteristics typically associated with such businesses, including the non-legal status of the enterprises, the unavailability of standard forms of collateral, the small size of transaction, the associated high cost per transaction, and the perceived riskiness (and associated cost) of such businesses. In developing countries the poor are usually served by informal lenders who charge enormously high interest rates, making the poor even poorer. Fortunately, there are non-governmental organizations (NGOs) and other credit organizations willing to offer the poor access to credit through the formal sector. These organizations are called microfinance institutions. Microfinance has made financial services accessible to low-income households to improve their financial security and their economic development.

An important aspect that usually surfaces in the theory of microfinance is how lenders deal with the main determinants of the costs of lending: screening, monitoring and enforce repayment. Usually banks screen, monitor and enforce repayment with the use of collateral. Collateral is the property the borrower promised to the bank in case of default. Banks also require a fixed and steady income to ensure the borrower's ability to repay the loan now and in the future. The poor, however, usually do not have a fixed and steady income and collateral. They often work in the informal sector and have a varying income from a small enterprise. Moreover, the non-legal status of this enterprise makes it hard to enforce repayment through the legal system and sell the property in case a borrower defaults on his loan. Microfinance programs have tried to overcome these problems and have developed alternative ways to screen, monitor and enforce repayment. The essence of microfinance is that the poor can borrow small amounts, without the requirements of standard collateral or a fixed income, to invest in their microenterprise.

§ 0.2 Microfinance of housing

Recently, some microfinance institutions started to notice that the poor that borrowed from the programs often used the loans to improve their houses instead of investing the loan in their small enterprise, as a consequence, the organizations started to offer microfinance of housing programs. Microfinance of housing is a rather new development that addresses the *shelter needs* of the rural and urban poor in developing countries that do not have access to traditional mortgage finance. Microfinance of housing is a highly promising practice that has begun to spread throughout developing countries.

Currently, less than a fifth of families in developing countries receive home financing through the formal sector. The low- and moderate-income households majority does not have access to traditional mortgage finance because of a lack of sufficient and fixed income to support the mortgage, or landownership with full legal land title. Traditional mortgage institutions require full legal land title as collateral because it enables the institutions to enforce the repayment of a loan through the legal system and sell the property in case a borrower defaults on his loan. Microfinance of housing programs have developed alternative forms of collateral, such as para-legal rights of landownership. It enables the poor to borrow small amounts of money with short loan terms, so that they can gradually improve their housing conditions.

§ 0.3 The research

Theoretical insights and empirical research on microfinance of housing are scarce. Therefore, the students decided to explore the existing theory and study microfinance of housing programs operating in Nicaragua. Therefore, they contacted different credit organizations that offer some kind of housing program to the poor in Nicaragua. Some of the credit organizations responded and invited them to visit their organization. In the spring of 2002, the students have been in Nicaragua to study these credit organizations. The present report has been drafted by Lisa Staal; Melchior Bauer developed an economic model to analyse microfinance and housing, which exercise has been reported in another study commissioned by the Science Shop of Economics[2].

Lisa Staal analyzed how credit organizations offering microfinance of housing programs to the low- and moderate-income households in Nicaragua have organized and structured their lending practice to deal with the issues of screening, monitoring and enforcement, considering the main objective of the organization. The main objective can be outreach, impact or sustainability. When outreach is the main objective, the number of poor households that can be reached by a microfinance program is the most important objective. When impact is the main objective, the aim is to have an impact on the reduction of poverty. Usually this implies that the depth of outreach is important; i.e. the level of poverty of the borrowers. Sustainability is a means to achieve outreach and impact. Whem a program has achieved sustainability, this means that the program can do with limited or even without subsidization; the revenues of lending are enough to cover the operating costs or can even provide the capital needed to operate. This implies the endurance of a program since it is unlikely that subsidization will continue endlessly. Moreover, when a program achieves financial sustainability it can do without subsidization (revenues are enough to provide the capital needed to operate) and generate a profit, which implies an expansion of lending capital. This will enable the organization to increase the number of borrowers. The choice of an organization’s main objective influences the importance of the efficiency in the screening, monitoring and enforcement. When sustainability is an important objective, the efficiency and the reduction of costs in the screening, monitoring and enforcement becomes increasingly more important. This research focused on the objective sustainability (in stead of outreach or impact), but not as an end in itself but rather as a means to achieve outreach.

This report is constructed as follows. Theoretical insights on microfinance and experience of microfinance programs will be given in chapter 1. A review and some insights on the existing literature of microfinance of housing will be given in chapter 2. Further, the research framework will be discussed in chapter 3. The lending practice of the microfinance of housing programs in Nicaragua will be discussed in chapters 4 to 7. The loan products the microfinance of housing programs offer will be presented and discussed in chapter 4. The way the programs screen a potential borrower will be discussed in chapter 5. Chapter 6 describes how the programs monitor a borrower. Finally, chapter 7 describes and analyzes the (alternative) forms of collateral that the programs use and how the programs enforce the repayment of the loans.

[2] This report can be ordered by the Science Shop. For address, see page 1 of this report.

Chapter 1 Microfinance

Microfinance lies at the roots of microfinance of housing. Therefore, to be able to understand and analyse the process of microfinance of housing, some theoretical insights of microfinance are indispensable. This chapter deals with several of these theoretical insights on microfinance. First, §1.1 gives a short insight on what exactly microfinance is, §1.2 explains the information problems in financial markets and how a bank deals with these problems. In §1.3, the transition will be made to microfinance institutions. This paragraph discusses the objectives of microfinance programs. In § 1.4, the question how microfinance programs deal with the costs and risks associated with lending to the poor will be raised.

§ 1.1 What is microfinance?

Financial services from formal financial institutions are rarely accessible to the poor. In fact, about 90 percent of the people in developing countries lack access to financial services from formal institutions. As discussed previously, this is because banks generally do not want to invest in financing informal enterprises due to characteristics typically associated with such businesses, including the non-legal status of the enterprises, the unavailability of standard forms of collateral, the small size of transaction, the associated high cost per transaction, and the perceived riskiness (and associated cost) of such businesses. Therefore, the poor generally have to do without credit from formal banks and other financial institutions or have to borrow from informal sources. But the problem with informal commercial moneylenders is that interest rates and the total costs of a loan can be extremely high (see further chapter 3). During the 1960s and 1970s, in many countries the idea arose that financial services should and could be made widely accessible to low-income people through the formal financial sector. At first, the goals usually were to increase food production, improve rural development, and decrease rural poverty. Later on the effort was spread to urban neighborhoods as well.

During the 1970s and 1980s a few people started to learn the dynamics of local financial markets in developing countries and to consider whether and how formal financial institutions could operate in these markets. Gradually a financial systems approach developed that joined principles of commercial finance with the growing knowledge of the demand for financial services among poor people and developing countries. The result was a model for financing the economically active poor through profitable financial institutions. This was the beginning of a microfinance revolution.

Microfinance refers to small-scale financial services, primarily credit and savings, provided to people at the local level of developing countries, both rural and urban, who operate small enterprises or microenterprises. Microcredit services enable the use of current investment in the microenterprise. The loans are meant for the investment in the microenterprise and are repaid from the proceeds of this investment in the microenterprise. Microfinance services can help low-income people reduce risk, improve management, raise productivity, obtain higher returns on investments, increase their incomes, and improve the quality of their lives and those of their dependents.[3]

§ 1.2 Financial markets and banks

One of the reasons that costs of lending are so high is that the lender often does not know enough about the borrower to make accurate lending decisions. This inequality is called *asymmetric information.* For example, when a borrower applies for a loan, the borrower has more information than the lender about the potential returns and risks associated with the investment for which the loan will be used. The lack of information can create two problems: adverse selection and moral hazard. *Adverse selection* is a problem created by asymmetric information and occurs when the potential borrowers who are the most likely to produce an undesirable (adverse) outcome (the bad credit risks) are the ones who most actively seek out a loan and are thus most likely to be selected. [4] *Moral hazard* is another problem created by asymmetric information. Moral hazard in financial markets is the risk (hazard) that a borrower might engage in activities that are undesirable (immoral) from the lender's point of view because they make it less likely that the loan will be paid back.[5] An example of moral hazard is that a borrower might apply for a loan to invest in a project but instead he uses the loan for gambling activities.

A financial institution can overcome the problem of adverse selection and moral hazard by two information producing activities, *screening* and *monitoring.* To reduce the risk of adverse selection a financial institution has to screen out the bad credit risks by collecting reliable information on the potential borrower. A bank initially collects information by making a potential borrower fill out standardized forms that elicit a great deal of information about the borrower's personal finances and other personal characteristics, such as marital status and number of children. A bank uses this information to measure how good a credit risk a potential borrower is. To reduce moral hazard a financial institution has to monitor a borrower to make sure that he does not engage in risky activities that make it less likely that he can repay a loan. Banks reduce moral hazard by writing provisions (restrictive covenants) and monitoring the borrower's activities and see if his activities comply with the restrictive covenants. For example, a bank can monitor a borrower' activities by requiring the borrower to provide information periodically in the form of a quarterly overview of his fixed income and expenses. This way, the requirement of a fixed income and periodically overviews can be used as a monitoring mechanism to keep track of the borrower's activities. The covenants will be enforced if the borrower engages in risky activities that do not comply with the covenants.

[3] Robinson (2001), *The Microfinance Revolution*
[4] Mishkin (2000), *Financial markets and institutions*
[5] Mishkin (2000), *Financial markets and institutions,*

To reduce the costs of monitoring and screening a bank can invest in a *long-term relationship*. If the borrower who applies for a loan has borrowed previously, the bank already has got a record on the borrower's loan repayments, which makes it easier to screen out bad credit risks and reduce the risk of adverse selection. Another advantage of a long-term relationship is that if a borrower has borrowed before, the bank has already established ways to monitor this borrower.[6] Therefore, costs of the monitoring process can be reduced.

Banks may also use *collateral* (property promised to the lender) to screen a potential borrower, to reduce moral hazard and to reduce adverse selection. A lender can reduce the costs of screening by offering a set of contracts with different combinations of collateral and interest rates. A good credit risk is willing to accept a contract with high collateral and a low interest rate because a good credit risk will not engage in risky activities or make risky investments and is therefore sure that he is going to repay his loan and will not loose his collateral. A bad credit risk, on the other hand, is not willing to pledge high collateral because of his preference for risky investments. He therefore has got a high probability of not being able to repay the loan and risks loosing his collateral. The choice of contract by the borrower thus signals his credit risk. The threat that the bank will retain the collateral of the delinquent borrower can reduce moral hazard. Selling the collateral to make up for the losses of the loan in case a borrower defaults on his loan can reduce the bad consequences of adverse selection.

But banks usually only want to lend to large borrowers and not to the poor because of the associated high costs and risks. The income of the poor is often generated from a microenterprise and is usually insecure and varying. This increases the risk of the borrower's inability to repay the loan. Further, the unavailability of standard forms of collateral and the non-legal status of the microenterprise imply high costs and risks. The non-legal status of the collateral makes it difficult to enforce repayment through the legal system and sell the collateral in case a borrower defaults on his loan. Furthermore, banks believe that the profit they can generate from small loan transactions does not outweigh the costly information collecting process. For a bank, the information collecting process are mostly fixed costs and these costs per dollar of transactions can only be reduced as the size of transactions increases (economies of scale). Banks aim to earn a profit and, unfortunately, the profits generated from larger loans are higher. This is why banks usually prefer the larger loan transactions and lend to the non-poor. Fortunately, there are microfinance institutions that are willing to lend to the poor.

§ 1.3 Microfinance objectives

Microfinance programs can have several objectives, but within each program one main objective can be distinguished. The three main objectives that can be distinguished are: *outreach*, *impact* or *sustainability*. These main objectives are linked: sustainability is the means to achieve outreach and all

[6] Mishkin (2000), *Financial markets and institutions*

microfinance organizations aim to have an impact on reducing poverty. Because of the cohesion of the objectives, the main objective of a program should be categorized as a tendency towards outreach, impact or sustainability. Figure 1 presents the cohesion of the three main objectives .

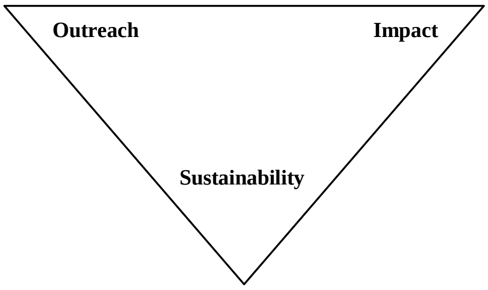

Figure 1 Outreach, Impact and Sustainability

When a program's main objective is *outreach,* the most important objective is to reach out to as many borrowers as possible. Outreach usually refers to the breadth of outreach of the program. The breadth of outreach refers to the number of outstanding loans. The social mission may be at the cost of the sustainability, efficiency and repayment rate of the program.

When a program's main objective is *impact*, the aim is to have an impact on reducing poverty. Usually this implies that the depth of outreach is important. The depth of outreach refers to the level of poverty of the borrowers. The strong social mission to reduce poverty and help the poor may be at the cost of the sustainability, efficiency and repayment rate of the program.

When a program's main objective is *sustainability*, its focus is on banking. Programs with a sustainability focus believe that microfinance banking can generate a profit. Therefore, the repayment rate and efficiency in the lending process are important to reduce costs. Sustainability can be considered on two levels: operational and financial sustainability. Operational sustainability means that the program can generate enough revenues to cover the operating costs. If an organization cannot achieve operational sustainability, the capital holdings will deplete over time. Financial sustainability means that the program can survive without any subsidization, meaning that the generated revenues can provide the capital needed to operate. This means that the funds are completely and efficiently revolving. An important advantage of financial sustainability is that the expansion of capital enables the program to increase the breadth (number of borrowers) of outreach. However, some experts estimate that no more than 1% of NGO programs worldwide are currently financially sustainable and perhaps another 5% will ever cross the hurdle.[7]

[7] Morduch (1999), 'The Microfinance Promise'

To achieve financial sustainability a program has to charge their clients a relatively high interest rate. A microfinance organization needs to consider whether they are willing to charge poor clients a high interest rate in order to be fully financial sustainable. For example, BancoSol, Bank Ryat and Badan Kredit Desa (three internationally leading microfinance programs) are financially sustainable but charge their clients a nominal interest rate, varying from 32% to 55% a year. The Grameen Bank, on the other hand, is not financially sustainable but the management is not willing to charge their clients a higher interest rate to accomplish financial sustainability, because they believe that this will undermine their social mission.[8]

Another important advantage of sustainability is that it means endurance, which implies that the number of households that can borrow will increase during the course of time. In theory, a permanent source of support (subsidization) can allow a microfinance institution to live a very long time. In practice, however, a donor or government is unlikely to continue subsidizing microfinance indefinitely and they will not be generous enough to subsidize on a major scale. Moreover, subsidized credit programs have been widely reported to experience high default rates. During the ‘70s and early ‘80s heavy subsidized credit programs proliferated in developing countries. The repayment rates, however, were 70-80% at best.[9] This was because the borrowers tended to be locally (political) influential individuals (rather than the poor) and because lending was often seen as a political entitlement rather than a business transaction, lending institutions typically put little effort into collection and usually did not retain collateral in case of default. The result was that the borrowers had little incentives to repay because of the lack of enforcement. Also, loan products in subsidized credit programs usually did lack flexibility towards the borrower. Amounts and terms of the loan were prescribed with little or no regard to the borrowers’ needs and income flows. This increased the chance of default in the repayment substantially.

The efficiency and repayment rate of a subsidized microfinance program can also decrease due to a soft budget constraint. If the program has a soft budget constraint, the subsidization will keep on flowing to fill up the gaps and the deficits of the program’s budget. As a result, there is not a sufficiently strong stimulus to maximise effort within the institution and weaker performance is tolerated. For example, the employees of a microfinance program with a soft budget constraint may put little effort in collecting loan repayments. If the budget constraint is hard, the institution has no other option but to adjust to the unfavourable circumstances by improving quality and cutting costs. It must behave in an entrepreneurial manner. If, however, the budget constraint is soft, such efforts are no longer necessary and efficiency and effectiveness decreases. This can imply an enormous decrease in the repayment rate and eventually may result in the destruction of the program.

[8] Morduch (1999), ‘The Microfinance Promise’
[9] Robinson (2001), *The Microfinance Revolution*

The choice of a program's main objective partly determines the importance of efficiency and the strictness of the enforcement of repayment. If impact or outreach is the main objective, the social mission to reach out to the poor may be at the cost of achieving sustainability. If sustainability is the main objective, the reduction of costs and the enforcement of repayment are extremely important. But sustainability should not be viewed as an end in itself but rather as an important means to achieve outreach and impact. Sustainability means the endurance of a program and the possible expansion of capital to increase outreach.

§ 1.4 Microfinance mechanisms

As discussed previously, lenders face three major problems, i.e. screening, monitoring and enforcement problems. They have to collect elaborated and in depth information on the client's characteristics to reduce the risk of adverse selection and moral hazard. The information collecting process and the enforcement in case of default is more difficult for a financial institution that is willing to lend to the poor. One of the reasons is that the poor are by definition poor and cannot always pledge valuable collateral. The result is that a borrower cannot 'signal' a lender by pledging valuable collateral, saying that he is a safe (a good credit risk) borrower. Further, a lender cannot sell valuable collateral in case the borrower defaults on his loan to make up for the losses of the defaulting loan. Another problem caused by the lack of valuable collateral is that the borrower may be more likely to take actions that make his ability to repay a loan less likely (moral hazard) because he has not got collateral to lose. The enforcement process is difficult due to a lack of valuable collateral and the often weak legal systems in developing countries. Microfinance institutions that are willing to lend to the poor have to deal with these problems and have to find alternative ways to collect information and alternative methods to enforce repayment to reduce the costs and risks associated with lending to the poor. Morduch[10] provides an overview of four alternative microfinance mechanisms. These mechanisms can deal with the information problems (adverse selection and moral hazard) and the enforcement problem effectively. These mechanisms are: the group lending contract, dynamic incentives, regular repayment schedules and collateral substitutes to help maintain high repayment rates.

The *group lending contract* is the most discussed mechanism. This mechanism is developed to deal with the asymmetric information problems and the lender's limited ability to apply sanctions against a delinquent borrower due to a lack of standard collateral. This economic joint liability model, or group lending model, can deal effectively with the three major problems facing lenders (adverse selection, moral hazard and enforcement) by utilizing information and social capital that exists among borrowers. Lending programs that use the joint liability method ask borrowers to form a group in which all borrowers are jointly liable for each other's loans. This means that if one member of the group is in default the other members liable have to repay the loan of the defaulter together. The insurance of repayment by the group in case of default serves as collateral. The underlying principle of the joint liability theory is that members of a community that form a group know more about each other than an outside financial institution.

When members of a community form their own group, costs and risks from the first two problems caused by asymmetric information can be reduced. First, group lending deals with adverse selection. With joint liability, the borrowers can usually select their own group using their own local information networks on the characteristics of the borrower. Several recent papers have examined the effect of joint-liability on the selection of groups.[11] These studies use an adverse-selection framework where borrowers know the characteristics of each other's projects relevant to their creditworthiness, but the bank does not. The studies show that safe borrowers prefer safe borrowers as members of their group because they are more likely to repay. This implies that in equilibrium, borrowers end up with partners of the same type (safe or risky).[12] Then, the bank can screen by offering different contracts with a varying degree of joint liability, assuming that risky borrowers from a risky group will prefer a contract with low joint liability and a high interest rate and a safe borrower will prefer a contract with high joint liability and a low interest rate (see § 1.2). The microfinance institution can use the peer selection of the group members (based on the information they have about each other) and a contract of high collateral to screen out the bad credit risks and offer loans to safe borrowers. Safe borrowers imply an increase of the repayment rate. Thus, Ghatak and Guinnane argue that the repayment rate is higher under joint-liability contracts as compared to convential individual-liability contracts because the former exploits a useful resource that the latter does not: the information borrowers have about each other.[13]

Second, joint liability reduces monitoring costs. Once a borrower has taken a loan, in absence of collateral, the lender and borrower do not have the same objectives. The borrower has got the incentive to invest the loan in a high-risk, high-return project because he will have a high return if the project succeeds and will only lose the loan sum itself if the project fails. The lender will receive the loan plus interest if the project succeeds but nothing if the project fails. Thus, the win-lose results between both parties are asymmetric. Moreover, it is difficult for the lender to influence the borrower's actions and investment decisions of the project, because most of these actions are not costlessly observable. Members of a group have incentives to monitor each other and to take remedial action against another group member who mis-uses her loan because they are jointly liable for each other's loan. This can save a bank a lot of costs on visits to monitor the borrower.

[10] Morduch (1999), 'The Microfinance Promise'
[11] Ghatak and Guinnane (1999), 'The economics of lending with joint liability: theory and practice'
[12] Sadoulet (1999) argues, however, that joint liability does not necessarily lead to 'assortative matching'
[13] Ghatak and Guinnane (1999), 'The economics of lending with joint liability: theory and practice'

The third problem lenders face is the lack of collateral. A major source of market failure in credit markets is that a bank cannot apply financial sanctions against poor people who default on loan, since by definition they are poor[14]. Members of a group from the same community, on the other hand, may be able to impose powerful non-financial sanctions at low cost. A financial institution that makes borrowers form their own group from members in their community can use information the community members have on each other to apply non-financial sanctions to delinquent borrowers, such as social exclusion. This pressure the members of a community can apply on each other is called “peer pressure”. Peer pressure helps to overcome the bank’s inability to apply powerful sanctions against a delinquent borrower; moreover, it can help increase the repayment rate. The Grameen Bank in Bangladesh and BancoSol in Bolivia are examples of microfinance programs that work with the group lending model.

The role of group lending has been exaggerated in the literature. Not all microfinance programs use the group lending method but can be just as successful in maintaining high repayment rates. Further, all those microfinance programs that use the group lending model use it in combination with other mechanisms and therefore it is hard to determine if the group lending mechanism is responsible for the high repayment rates of these programmes.

Morduch and Armendariz suggest ways in which group lending might be helpful beyond the use of joint liability. [15] They propose to retain practice of meetings with clients in groups without group members being jointly liable. First, by making the members of a group publicly repay during the meeting of a group can strengthen the strategic use of social pressure. Second, by meeting with groups of borrowers at scheduled times and at scheduled locations, costs can be reduced on the visits to the borrowers. Third, a group meeting can be used to tell the borrowers about sanctions that were taken against delinquent borrowers, thereby increasing the pressure to repay a loan. Fourth, group meetings can be used for education and training, if necessary.

Another mechanism for securing high repayment rates is the use of *dynamic incentives* and can be used in combination with an individual lending or group lending mechanism. The idea is that borrowers can begin by borrowing small amounts. The lender can then increase the loan size if he is satisfied with the repayment behaviour of the borrower. This is called progressive lending, by which the threat that the borrower can be cut off from any future lending when loans are not repaid is exploited. A striking advantage of the progressive lending mechanism is that lenders can test the borrowers in the beginning period when loan sizes are still small. They can develop a long-term relationship with their clients and screen out bad credit risks before increasing the loan size. However, competition can diminish the threat of being cut off from lending because a borrower in default can go to the competitor for future loans. Dynamic incentives also work better if there is low mobility in the

[14] Ghatak and Guinnane (1999), ‘The economics of lending with joint liability: theory and practice’
[15]Armendariz and Morduch (2000), ‘Microfinance beyond group lending’

area. If people in an area come and go, the moral hazard can increase because it is hard to keep track of the movers. The progressive lending mechanism can help reduce moral hazard and help overcome the enforcement problem by using it as a supplement to collateral substitutes.

Another mechanism that can be used is the requirement that repayments start immediately after the disbursement of the loan and proceed regularly after the disbursement. An advantage of requiring very *regular repayments* directly after disbursement is that it can help screen out undisciplined borrowers in the early stages. Another advantage is that because the repayments start immediately after disbursement, the household has to repay the loan from other more steady income sources than from the proceeds of the loan investment alone. The repayment of the loan from another more steady income lowers the risk of the borrower's inability to repay the loan.

Only a few microfinance programs require collateral, the larger part of microfinance programs use *collateral substitutes*. For example, the Grameen Bank does not require collateral but instead uses collateral substitutes. They require that 0.5% of every unit borrowed goes into an "emergency fund" to make up for the losses in case of default. Another 5% of the loan is taken out as a "group tax" for the group fund. Half of the fund can be used as 0% interest loans to the group members; the other half can be used as a collateral substitute. The "emergency fund" and "group tax" mechanisms the Grameen Bank use can be appointed as *mandatory savings* and can serve as collateral substitutes. The Bank Rakyat in Indonesia is one of the few microfinance programs that requires collateral but they also explicitly emphasize the role of dynamic incentives in generating repayments. BancoSol in Bolivia, on the other hand, uses the group lending contract as a collateral substitute and emphasizes the role of joint liability in assuring repayments.[16]

Although very few microfinance programs require collateral, the major new programs report loan repayment rates that are in almost all cases above 95%.[17] Unfortunately, there is not yet sufficient empirical evidence to determine which mechanism is really most important in driving the high repayment rates. The programs all use different mechanisms and different collateral substitutes to ensure their high repayment rates.

Like many other microfinance programs, until recently the Grameen Bank did not focus on *voluntary savings* and did not provide opportunities for voluntary savings. It is generally thought that the poor were too poor to save. But recent microfinance experience shows that even poor households are eager to save if given appealing interest rates, a conveniently located facility and flexible accounts.[18] For the poor, building up savings can offer important advantages. They can save money to use as collateral to apply for a loan, they can self-finance their investment needs and savings can help smoothen consumption patterns. But besides the borrower, the lender can also benefit from voluntary savings.

[16] Morduch (1999), 'The Microfinance Promise'
[17] Morduch (1999), 'The Microfinance Promise'
[18] Morduch (1999), 'The Microfinance Promise'

First, it can provide a microfinance program with capital from which the financial institution can re-lend. According to Robinson[19], dependence on governments and donors for financing loan portfolios can even be eliminated because the portfolios can be financed by capital from the savings deposits. For example, Bank Rakyat in Indonesia finance their loan portfolios from locally mobilized deposits and are fully financial sustainable. Second, a savings client can be a borrowing client tomorrow, which means that a savings program can help establish a larger clientele.

[19] Robinson (2001), *The Microfinance Revolution*

Chapter 2 Microfinance of Housing

Microfinance of housing emerged from the microenterprise finance. The aim of microfinance programs was to expand the economic development opportunities of the poor. However, frequently the microfinance institutions observed that their clients borrow for income-generation purposes, yet channel the borrowed money into housing improvements. Ever since this observation, these institutions started to expand their lending portfolio to offer a new range of housing finance products for housing improvement as well as for the construction of new units.

Microfinance of housing is a newly emerging discipline from the past two decades. It has characteristics from both microenterprise finance and traditional mortgage finance. But, microfinance of housing should be viewed as a whole new methodology to finance housing for low- and moderate-income households. Microfinance of housing programs aim to offer access to loans for housing to low- and moderate-income households that do not have access to traditional mortgage finance because they often lack legal land title, a steady income or other financial resources. According to a research conducted by Klinkhamer [20], on the supply side only 3% of outstanding credit in developing countries is held in the form of housing loans, compared to 27% in high-income countries and housing loans only go to the higher-income households. The lower-income households usually acquire housing through the informal sector. Informal moneylenders, however, charge very high interest rates (see further § 3.3) that eventually may lead to an increase of the poverty of these households. Microfinance of housing programs want to offer these households the opportunity to acquire housing through the formal sector with considerably lower interest rates.

First, in § 2.1 the characteristics of traditional mortgage finance will be set forth and it will discuss why traditional mortgage finance does not fit the needs of low-and moderate-income households. Then, in § 2.2 some essential characteristics of microfinance of housing and how microfinance of housing differs from microfinance are discussed. Further, in § 2.3 the differences and similarities of microenterprise finance and microfinance of housing will be presented and, finally, in § 2.4 a preliminary conclusion of microfinance of housing will be drawn.

§ 2.1 Traditional mortgage finance

In the past, attempts were made to simply go “down the market” with traditional mortgage finance. However, traditional mortgage finance techniques were not successful in developing countries. The characteristics of typical mortgage finance include a long-term loan (10 to 30 years) at market interest rate, based on a steady income, monthly payments that are fixed and the use of property as collateral, to which mortgagers must have full legal land title. These mortgage characteristics usually do not fit

[20] Klinkhamer (2000), *Microfinance Housing Products and Experience with Land Title as Collateral*

the facts of low- and moderate-income households in developing countries. Typical mortgage finance fails to reach the low- and moderate-income households in developing countries because:

- The debt service for a loan necessary for a complete, commercially built unit far exceeds the capacity of low- and moderate-income households to pay[21].
- The underwriting requirements, including full legal land title to property and monthly payments far into the future (as long as 15 to 30 years in some countries) conflict with the survival strategies of low- and moderate-income households.
- Traditional mortgage lenders have little interest in making the organizational changes and learning the business of making small loans to low- and moderate-income households[22].

The first problem concerns the fact that a commercially built unit by a traditional mortgage lender far exceeds the capacity of low- and moderate-income households to pay. Ferguson [23] conducted a research in which he addresses the affordability criteria. His affordability calculations of the low- and moderate-income households concerns four low- and middle-income countries, Bolivia, Venezuela, Colombia and Suriname. Low-income households fall far short of affording a minimum core unit because they cannot meet the criterion used to qualify households (the mortgage payment to income ratio) by traditional mortgage lenders. The ratio of mortgage payment to income for low-income households (104 per cent in Bolivia and 40 per cent in Colombia) far exceeds the maximum (25 per cent and 30 per cent is the underwriting standard necessary to qualify) allowed by commercial financial institutions in these countries. Moderate-income households in these four countries come closer to or are able to afford traditional mortgage finance of a minimum formal sector unit, depending on average monthly income of moderate-income household and average monthly payment of a typical mortgage in that country.

The second problem is that mortgages require payments every month over a long period of time. However, low- and moderate-income households are often self-employed, their incomes vary greatly per month and they face crises that absorb all of their resources and solving these crises has priority to the monthly repayment of a mortgage. In short, it conflicts with the survival strategies of the poor. People who are dependent on survival strategies try to avoid debts as much as possible and when they incur debts they opt for keeping their period of indebtedness as short as possible to be able to cope with other pressing needs such as food, education of the children, travel to the place of work and medicines.[24]

Mortgages typically require full legal land title to their property. In developing countries, however, most low- and moderate-income households have para-legal rights to their property or no land title at

[21] Ferguson and Haider (2000), 'Mainstreaming microfinance of housing'
[22] Ferguson and Haider (2000), 'Mainstreaming microfinance of housing'
[23] Ferguson (1999), 'Micro-finance of housing: a key to housing the low- and moderate-income majority?'
[24] Smets (1999), 'Housing Finance Trapped in a Dilemma of Perceptions: Affordability Criteria for the Urban Poor in India Questioned'

all. This is usually unacceptable for traditional mortgage institutions. Because of problems with registration systems of land, acquisition of full legal land title is a very costly and time consuming process. Often, this is unaffordable for low- and moderate-income households.

The third problem is the unwillingness of the traditional mortgage lenders to make the organizational changes to lend to low- and moderate-income households. The smaller loans for low- and moderate-income households are much less profitable than the larger loans, due to the extra work that the smaller loans require and the smaller loan sizes. For example, the high rate of self-employment among the low-and moderate-income households makes the screening and the monitoring process expensive and time consuming because of difficulties concerning the verification and documentation of their income.

§ 2.2 A new methodology: microfinance of housing

Microfinance of housing is a rather new movement that addresses the shelter needs of the rural and urban poor in developing countries that do not have access to traditional mortgage finance. The microfinance of housing enrolls from the microenterprise lending and therefore has a mission to focus on the lower-income households. The uniqueness of microfinance of housing is that it offers the lower-income households the opportunity to improve their housing conditions with relatively small loans through the formal sector and often without the requirement of a fixed income and standard collateral. There are two basic housing finance products: loans for improvement/expansion and microfinance for the construction of a new unit.

Klinkhamer [25] conducted a survey of approximately 80 successful (in terms of repayment rate and outreach of at least 2000 loans) housing programs in developing countries that offer some kind of microfinance of housing loan product. Most of these organizations were already specialized in finance, usually microenterprise finance. The following features and findings for both housing finance products can be found from this survey:

1. About half the organizations surveyed have *loan amounts* ranging from $100 to $5000. Smaller loan amounts (usually loan amounts between $100 and $2500) are used for the improvement of housing. The incremental building process of housing is a shelter strategy that is typical for low- and moderate-income households. Incremental building refers to the process of gradually improving and/or expanding the house with small loan amounts and short loan terms. Microfinance of housing fits this incremental building process; loans can be obtained in small amounts and are affordable for the low- and moderate-income households.

[25] Klinkhamer (2000), *Microfinace housing products and experiences with land title as collateral*

2. Loan terms vary from one to fifteen years, with most of the loans on a short term, which is less than 3 years. The shorter loan terms fit with the survival strategies of the poor because they want to keep their indebtedness as short as possible.
3. *The interest rate* for housing loans are generally above the average rates charged by commercial banks. Exceptions to this are some credit unions in Latin America (e.g. Mutual La Primera in Bolivia), which set rates below the market rate. This is made possible by a huge loan volume. Some organizations even charge interest rates that vary with loan size; in fact some organizations that also offer microenterprise finance products charge a considerably lower rate for housing products (e.g. Grameen Bank charges 12% less for housing loans). The relatively lower interest rates of the housing loans in the case of the Grameen bank are most likely due to the larger loan sizes coupled with lower transaction costs and the large loan volumes.
4. *Collateral* can take various forms, depending on the legal system and local practice of the country. It can range from a standard mortgage as collateral to para-legal ownership of land, because standard mortgage collateral is not always available and realizable in developing countries. Para-legal land title refers to various combinations of proof of ownership short of full title including bill of sale from the previous holder of property and receipts for payment of property taxes and other governmental charges related to the property.[26] Para-legal ownership can be seen as putting psychological pressure on the borrower and therefore can be used effectively as collateral. In some cases, however, alternative collateral is required. Alternatives include co-signers and mandatory savings. A co-signer is a person who, besides the borrower, signs a loan contract in which is stated that the co-signer can be held liable in case the borrower defaults on his loan. In case of default, the co-signer has to repay the outstanding loan. Mandatory savings are a key aspect as a proof of the borrower's ability to repay a loan and at the same time can serve as collateral. For the smaller loans, almost anything can go as collateral, as long as it is of great value to the borrower. For the construction of new units (usually loans above $2500), however, full legal land title is usually required.
5. A *condition* that is usually required by the organization when a client wants to apply for a loan for the construction of new units is technical assistance and supervision to reduce the risk of project failure and to monitor the borrower. Technical assistance includes evaluation of home improvement plans and costs, title verification, and construction monitoring.
6. According to Klinkhamer, *the repayment rate* is not an issue for the housing finance products. She reported in her research a repayment rate above 89% and most in the high 90s for all the organizations.

As discussed previously, traditional mortgage finance fails to reach the low- and moderate-income households because the debt service for a loan far exceeds the capacity of low- and moderate-income households to pay, because the underwriting requirements (including full legal land title to property and monthly payments far into the future) conflict with the survival strategies of low- and moderate-income households and because traditional mortgage lenders have little interest in making the organizational changes and learning the business of making small loans to low- and moderate-income households because it is less profitable. Microfinance of housing programs are able to reach the low- and moderate-income households because the programs offer loan products with relatively small loan amounts (as small as $100), which are affordable to these households. Further, the loan terms of microfinance of housing programs can be as short as one year, which fits the survival strategies of the poor. Also, full legal land title is usually not necessary because microfinance of housing programs allow para-legal landownership as a collateral substitute. Finally, microfinance of housing programs aim to reach out to the poor and thus are interested in learning the business of making small loans to the low- and moderate-income households. However, it is difficult to obtain profitability as a microfinance of housing program. This will be discussed further in the next paragraph.

§ 2.3 Differences and similarities between microfinance of enterprises and microfinance of housing

Housing microfinance is a combination of traditional mortgage finance and microenterprise finance. It shares characteristics with both, but there are also some important differences. Below, the most important differences with microenterprise finance are discussed. The most obvious difference is the amount ($100 to $5,000) and the length (one to fifteen years) of housing microfinance loans that are typically much less than that of mortgage finance, but greater than that of microenterprise credits. The longer term of microfinance of housing may increase the risk of default as compared to microenterprise finance. The risk of circumstances to change is larger when loans have a longer loan term. For example, changes in the economic or political situation (such as a war) can take place and this may increase the risk of default.

Another difference between microenterprise finance and microfinance of housing is that the credits supplied by microfinance programs are to be used for income-generating activities only. The loan is used for the investment in the microenterprise and the loan is repaid from the proceeds of this investment. Microfinance of housing, however, is not primarily meant for income-generating purposes. The loan is used for consumption: to acquire housing. Therefore, the loan has to be repaid from other income resources that have to be verified to ensure the repayment of a loan. It is, however, possible that the borrower uses the expansion or improvement of the house to rent out a room or to use a part of the houses for their microenterprise. As a result, the income of the household can increase from which the loan can be repaid.

[26] Ferguson (2001), *Profile II Nicaragua*

The main objectives of microfinance of housing programs can be similar to the main objectives of microfinance programs, namely outreach, impact or sustainability. Outreach, however, is a major issue for microfinance of housing programs that aim to reach as many households as possible. Most organizations are only able to reach out to a couple of thousands or even a couple of hundred households. Housing loans can be as high as $5000 and because the budget is restricted only a limited number of households can borrow from the funds. The programs need very large capital resources to expand the breadth of their outreach. Thus, to increase the outreach a lot of housing programs are needed to help large numbers of lower-income households in acquiring housing. Microenterprise programs, on the other hand, are able to reach out to tens of thousands or in some cases (e.g. Grameen Bank and Bank Rakyat) even several million borrowers due to the smaller loan size.

The revolving potential of funds in housing microfinance is smaller due to larger loan sizes and the longer loan terms. Because loan terms can be up to fifteen years, it can take a very long time before a loan is put back into the funds. As a result the revolving potential, and with this the extent of outreach, of a fund is smaller. A program can increase the outreach and the revolving potential by focusing more on offering smaller improvement loans with shorter loan terms. A program can also consider offering smaller improvement loans to increase the depth of outreach if a program primarily aims to have an impact on reducing poverty and reaching the poorest households as possible.

Klinkhamer demonstrates in her research that even specialised housing finance to lower income segments can be a viable business. Examples of credit organisations that have achieved profitability are Mutual la Primera in Bolivia, Rural Finance Facility in South Africa and the Government Housing Bank in Thailand. The profitability of these programs is most likely due to the large loan volumes combined with lower transaction costs. For example, in the year 2000, the Government Housing Bank in Thailand reported 661,100 outstanding housing loans with an outstanding loan balance of $7784 million.[27]

Some of the mechanisms that the microfinance programs use to increase repayment and reduce the costs of screening and monitoring can also be used for microfinance of housing programs and do not differ that much from microenterprise programs. Dynamic incentives, or progressive lending can be used to secure repayments and reduce monitoring and enforcement costs. Staggered loans can be built into the lending process for the housing improvement loan products. For example, first the borrower can apply for a loan to improve the floor, and then he can apply for a loan to build a bedroom, etc. A progressive lending process also provides the lender the opportunity to build a relationship with the borrower to reduce the risk of adverse selection and moral hazard. But also for the microfinance of housing programs that use dynamic incentives, a key condition for this mechanism to function properly is that there is low mobility in the area.

[27] Klinkhamer (2000), *Microfinace housing products and experiences with land title as collateral*

Savings can also successfully be used by microfinance of housing programs. Klinkhamer indicates in her research that an important best practice of housing programs is the requirement that potential borrowers save at a rate equivalent to their future repayment for a period (e.g. 6 months to a year) before the borrower can obtain a loan. This savings period gives the organization also the opportunity to build a relationship with the borrower. By establishing a relationship during a savings period, an organization can learn more about the borrower's characteristics (willingness and ability to repay a loan) that can lead to a decrease in screening and monitoring costs. Furthermore, it can serve as collateral.

Frequent repayment schedules immediately after disbursement is not common for microfinance of housing loans. Most of the organizations require monthly repayments. Collateral for the loans for microfinance of housing can also differ from collateral used by microenterprise programs. Legal land title (or para-legal) is often used by microfinance of housing programs for the construction of new units. And in contrast to microenterprise finance programs, microfinance of housing programs rarely uses joint liability or a group as collateral because the larger amounts and longer terms of a housing loan impose greater risk for the other members. The loan sizes of housing products are substantially larger than microenterprise loans and are too large to be repaid by the group in case of default. Low-income borrowers should not be and cannot be held liable for loans of other group members that can be as high as $5000. Furthermore, it is hard to hold a group together when circumstances can change considerably over a longer period of time. The lending method used by microfinance of housing programs is usually restricted to the individual lending method.

§ 2.4 Microfinance of housing: a preliminary conclusion

The main obstacle to microfinance of housing is similar to that of microenterprise finance: commercial institutions do not believe that lending to lower-income households is profitable. Lenders earn more and do less work making larger loans to higher-income households. Profitability for housing programs is possible, but very hard to obtain. Little is yet known on the interest rates and the demand necessary to make microfinance of housing programs profitable. Some important best practices, however, can be learned from microfinance programs in terms of efficiency to reduce costs and increase the possibility of achieving financial sustainability. For example, the use of dynamic incentives and savings to reduce the screening, monitoring and enforcement costs.

Microfinance of housing programs are more constrained in their resources of funding due to larger loan sizes and longer terms than microenterprise finance. Therefore, it may also be wise to promote savings programs to provide the program with capital to re-lend and increase the possibility to achieve financial sustainability.

Chapter 3 Research Framework

This chapter discusses the research framework. In §3.1, the research objective on which this research was based are described. Then, in §3.2, the research methods that were used for the empirical research in Nicaragua will be explained. Finally, in §3.3 the research setting is given by providing a short profile of the Nicaraguan housing market.

§ 3.1 Research objective

An organization that is willing to lend to the poor for housing has to find ways to deal with the screening, monitoring and enforcement, often without the use of standard collateral (house and land with full legal land title) and a fixed income of the borrower since they are generally not available. This research aims to find out how credit organizations that offer microfinance of housing programs to the low- and moderate-income households in Nicaragua have organized and structured their lending practice to deal with the issues of screening, monitoring and enforcement, considering the main objective of the organization. The results of this research may provide lessons for a new microfinance of housing initiative in San Carlos or elsewhere in the developing world.

The main objective of microfinance programs in general is to offer lower-income households access to credit; i.e. maximise outreach. If impact is the main objective of a microfinance of housing program, the depth of outreach becomes increasingly more important. Therefore, it is investigated whether and to which extent the housing programs reach the lower-income households with the loan products they offer. Another objective may be the sustainability of the program. If the sustainability of a program is an important objective, then the interest rate and efficiency of the screening, monitoring and enforcement of a program become increasingly more important. This research focuses on the objective sustainability (in stead of outreach or impact), but not as an end in itself but as a means to achieve outreach.

The above discussion leads to the following sub questions that have to be answered:

- What loan product(s) do the credit organizations offer?
- What is the main objective of the organizations?
- To which extent have the organizations accomplished its main objective with the loan product they offer?
- How is the screening process organized and structured?
- How is their monitoring process organized and structured?
- How is their enforcement process organized and structured?
- Which lessons can be learned from their lending practice for a new microfinance of housing initiative in San Carlos or elsewhere in the developing world?

In this paper, the term lending practice refers to the loan products the microfinance of housing programs offer and to how the microfinance of housing programs deal with the screening, monitoring and enforcement issues. The term loan product refers to a loan for home improvement or for the construction of a new basic core unit. It has the following features: the loan size, the loan term, and the annual interest rate of the loan.

For the purpose of this paper, a low-income household is defined as a household that has a monthly income below the official poverty line of $155 per household. This definition is according to a research on the housing market in Nicaragua. [28] A moderate-income household as a household with a monthly income between $155 and $285. The maximum level of the definition of moderate-income household can be set higher, but the amount of $285 is based on the maximum level of income that the microfinance of housing program in this research have set. These programmes say they aim to reach the low- and moderate-income households. As will be presented in chapter 5, the set maximum allowed income level of the housing program of CEPAD, HABITAT and ACODEP are respectively $215, $285 and $250.

§ 3.2 Research methods

From March 2002 till May 2002 Lisa Staal conducted a field research in Nicaragua. For this research she interviewed executives of ten different organisations that operate on the Nicaraguan housing market and offer some kind of microfinance of housing program for low- and moderate-income households.

The research for this thesis provides a description of the lending practice of the credit organizations; i.e. a descriptive research. The methods used to gather information for the descriptive research were interviews and questionnaires. The nature of the research interviews was structured. With a *structured interview*, questionnaires are used that are based on a predetermined and standardised set of questions (see appendix 2).[29] The questionnaire that is used for the interviews was a standardised list with a combination of open, specific and closed questions. An open question is designed to encourage the interviewee to provide an extensive answer, for example what are the objectives of the organization. A specific question is designed to obtain a specific piece of data, for example the interest rate the organizations charge their clients. A closed question provides a number of alternative answers from which the respondent has to choose. One person per organization was interviewed with the established list of questions; a tape recorder was used to record the conversation. The number and depth of the interviews were restricted to the time frame of the study (3 months). Of the ten organisations that have been interviewed, five were selected to study and analyse for this paper, because the data gathered

[28] Ferguson (2001), *Profile II Nicaragua*
[29] Saunders, *et al.* (2000), *Research Methods for Business Students*

from these organisations were more elaborated.[30] Further, three of these five organisations (CEPAD, CEPRODEL, and ACODEP) lend for home improvement and expansion as well as building complete new units, so that it was possible to study both aspects within the same organisation. AFODENIC and HABITAT only lends to their clients for the construction of complete new units.

The second part of the research was a questionnaire, which was sent to the organizations after the interviews were conducted. The questionnaire was designed to find answers to questions that were not answered or did not surface during the interviews. For example, one question was designed to find out why the programs did not use group lending contracts. During the interviews it was learned that the programs did not use group lending contracts but not why they did not use the group lending contract. Also, the aim was to gather quantitative data to make generalizations. The questionnaire consists of specific, closed and scale questions (see appendix 3). The scale questions were designed to ask the respondents how strongly they agreed or disagreed with a series of statements on a six-point scale. Unfortunately only AFODENIC, CEPRODEL and CEPAD have answered and sent the questionnaire back. The data from the questionnaire are limited to these 3 organizations. Due to the small size of the sample of organizations, it is very hard to make generalizations.

§ 3.3 Profile of Nicaragua

This paragraph provides a description of the Nicaraguan housing market and housing situation, which indicates the importance of (new) microfinance of housing initiatives. This paragraph also describes some specific problems that a microfinance of housing program may face on the Nicaraguan housing market. These aspects can influence the way the credit organizations deal with the screening, monitoring and enforcement issues and are therefore important to consider within the framework of this research.

Nicaragua is a developing country that is in great need of improvement of the living conditions of the poor majority. According to the 2001 country Reports on Economic Policy and trade practices released by the bureau of economic and business affairs of the U.S. Department of State, Nicaragua had a per capita GDP of $468 in 2001.[31] A research based on data from the municipalities of Nicaragua, Source of General Information (INIFOM, 1999) and the government of Nicaragua, indicated that the per capita poverty line of 1998 was set at $402.05 ($33.5 per month).[32] *The Statistical Abstract of Latin America*[33] indicated that 72% of the population and 66% of the households in 1997 lived below the poverty line. The total population was estimated at 4.7 million in 1997, meaning that 3.4 million people lived below the poverty line in 1997 and need an improvement of their living conditions (including the housing conditions). The poverty line is the amount of annual

[30] The interviewees, the date and place of the interviews can be found in appendix 1.
[31] <URL: http://www.state.gov/documents/organization/8209.pdf>.
[32] <URL: http://www.ccer-nic.org/jshape_2x/jshapep.htm>.

consumption per head necessary to buy a minimum number of calories and other articles including housing, clothing and transport. According to the same source the average per capita monthly household income divided by the per capita poverty line in 1997 was 1.23. This means that, provided that the per capita poverty line of 1997 was approximately the same as in 1998, the average per capita monthly household income would be approximately $41 ($33.5*1.23) in 1997.

Prior to 1979, Nicaragua's banking system consisted of the Central Bank of Nicaragua and several domestic- and foreign-owned commercial banks. One of the first acts of the Sandinista government in 1979 was to nationalise the domestic banks. Foreign banks were allowed to continue their operations but could no longer accept local deposits. Private banks have only been operating since the beginning of the 1990s. In 1992 the largest state owned commercial bank was the National Development Bank (*Banco Nacional de Desarrollo*--BND), originally established by Chase National Bank. Other state-owned commercial banks were the Bank of America (*Banco de América*--Bamer) and the Nicaraguan Bank of Industry and Commerce (*Banco Nicaragüense de Industria y Comercio*--Banic). The People's Bank (*Banco de Credito Popular*) specialised in business loans. Since then, substantial progress is being made on the structural front. The banking system is being strengthened with the closing or privatisation of financially weak state banks. In June 1998 the large state bank, *Banco Nacional de Desarrollo* (BND) was liquidated. Within the same year the National Assembly approved the law for the privatisation of another major state bank, *Banco Nicaraguense de Industria y Comercio* (BANIC) and the shares of the second tier state-owned financial institution, the *Fondo Nicaraguense de Inversion* (FNI), were offered for sale and the government submitted to the Assembly a bill that would permit the partial privatisation of the last state bank, *Banco de Credito Popular*. But the process of financial deregulation in Nicaragua was not linked to a development strategy, and it failed to establish a competitive financial structure. Many barriers to the establishment of new financial institutions continue to exist. Interest rates have remained high not just because of perceived business risks, but also because of the oligopolistic structure of the banking system.

Public housing institutions in Nicaragua are weak and uncoordinated. The *Banco de Vivienda de Nicaragua (BAVINIC)* was created in 1996 and has been the principal public agency responsible for implementing the country’s housing strategy, including directly building housing solutions and financing loans targeting for the low-income population. As other public sector banks in Nicaragua, BAVINIC has not proved successful at its mission. The housing policy of the government has only resulted in sporadically built housing projects, often in response to emergencies and disasters. As a developer, it produced housing solutions that only the moderate and upper-income households could afford.[34]

[33] Wilkie, *et al.* (2002), *Statistical Abstract of Latin America.*
[34] Ferguson (2000), *Profile I Nicaragua*

According to a research conducted by Ferguson on the housing market of Nicaragua in the year 2001, 58% of households live overcrowded with two or more people living in one room and 39% of units are constructed with scrap or other impermanent materials. [35] Overall, approximately 70% of the housing stock requires some work, while half this number requires major work or replacement. These facts show the extreme necessity for an improvement of the housing conditions of the Nicaraguan people. The Nicaraguan housing market, however, is largely undeveloped.

Mortgage finance in Nicaragua became legally possible in 1997. Since then, the share of mortgage lending in the total portfolio of the Nicaraguan final system grew from less than 1% in 1997 to 4.8% in 2000. Commercial banks made 97% of the mortgage loans. The interest rates have ranged between 14% and 22%. Mortgage lenders have only focused on the upper-moderate and upper class with loans mostly between $20,000 and $70,000. According to a profile of the Nicaraguan housing market, the lowest cost commercially produced house that was offered on the market in the year 2000 was a 36 m2 "basic" house with minimum services which sells for $11,000. [36] At the end of the year 1998, the commercial banking sector in Nicaragua financed fewer than 600 housing loans. The number of mortgaged loans increased to about 1000 per year in 2000, compared to a new urban household formation of more than thirty times this number.[37] Approximately 85% of these households cannot afford a commercially built unit. Further, the majority of low- and moderate-income households do not have access to traditional mortgage loans due to factors including requirements for full-legal land title, formal-sector employment and sufficient income to support a large enough loan of mortgage lenders. Furthermore, the commercial mortgage lenders are usually unwilling to lend to the lower-income households because smaller loans are much less profitable than the larger loans due to the extra work that the smaller loans require and the smaller loan sizes.

The formal housing market remains largely undeveloped. The lack of formal-sector support of housing has caused a large share of households to suffer from poor housing conditions. An estimated 85% of the Nicaraguan households house themselves through the informal sector, acquiring their housing over time through a process of progressive building, upgrading, and accessing basic services.[38] The informal lenders are also known as "predatory lenders". With predatory lenders, people are used to paying rates up to and exceeding 150-200% interest per year, spiralling many into a never-ending cycle of debt.

NGOs have been the most visible suppliers of low-cost housing, producing around 1,500 units per year. Microfinance of housing programs of NGOs eventually could cover a large part of the low- and moderate-income majority that does not have access to and cannot afford traditional mortgage finance. For thousands of people, microfinance of housing programs can offer a way out of never-ending

[35] Ferguson (2001), *Profile II Nicaragua*
[36] Ferguson (2000), *Profile I Nicaragua*
[37] Wilkie, *et al.* (2002), *Statistical Abstract of Latin America*

cycles of debt of predatory lenders and can offer access to credit to improve their housing conditions through the formal sector.

Microfinance of housing programs can supply the low- and moderate-income majority low-cost housing. Self-help building and development costs in Nicaragua are very low. The self-help construction of a 36 m2 new unit costs $2000.[39] But although home construction of new units is very low, the lower-income households have so little income that they cannot afford to construct a unit. For them, relatively smaller loans for the improvement of their house could be a solution.

A microfinance of housing program that is willing to lend to the poor has to deal with some specific problems in Nicaragua. One of these problems is that the majority of the lower-income households work in the informal sector and it is very hard to verify their income. According to the 2001 country Reports on Economic Policy and trade practices released by the bureau of economic and business affairs of the U.S. Department of State, the unemployment rate in 2001 was 10.3%. The real average wage of the *employed* economically active persons that were covered by social security system in 1999 was $109.4.[40] Many Nicaraguans, however, work in the informal sector, about 55 percent of the economically active population. The informal sector consists of small-scale enterprises that employ primitive technologies and operate outside the legal regime of labour protections and taxation to which large modern firms are subject. Workers in the informal sector are self-employed, unsalaried family workers or employees of small-enterprises, and they are generally poor. Because informal sector earnings are generally very low, few families can subsist on one income. A man who works in a small shop might have a wife at home making tortillas or a child on the street selling cigarettes. Nicaragua's informal sector workers include tinsmiths, mattress makers, seamstresses, bakers, shoemakers, and carpenters; people who take in laundry and ironing or prepare food for sale in the streets; and thousands of peddlers, owners of tiny businesses (often operating out of their own homes), and market stall operators.

A microfinance of housing program also has to deal with some major issues in the enforcement process. Traditional mortgage lenders usually require the house and the land with full legal land title as collateral. In Nicaragua, however, the issue of legal land ownership is a major item that affects all Nicaraguans. During the years of Sandinista rule (from 1979-1990), major land holdings were taken from the titled owners and were redistributed among the peasants. The entire system of titled ownership was shattered. Throughout the Sandinista era, up until 1990, the Sandinistas often confiscated properties from individuals and businesses and redistributed it according to their own policies. When democracy was reinstated, all of the former owners of course protested and massive property disputes arose at all levels of society. The process by which these disputes are resolved is

[38] Ferguson (2000), *Profile I Nicaragua*
[39] Ferguson (2001), *Profile II Nicaragua.*
[40] Wilkie, *et al.* (2002), *Statistical Abstract of Latin America.*

very cumbersome and inadequate, resulting in many premium properties that sit empty because their ownership is still in dispute.

The property registration that is supposed to maintain records of the land title, still functions poorly. Registration of land title continues to occur manually in archives, which are often poorly organized and incomplete. As a result, 47% of the population lacks formal legal land title.[41] These households hold various forms of para-legal land title. It is a very time and money-consuming process to obtain full-legal land title and the typical low- and moderate-income households cannot afford to spend their money on this process. Moreover, the court system of Nicaragua is ill equipped to deal with these claims and local law enforcement remains inadequate. According to the U.S. Department of State, 'difficulty in resolving commercial disputes in Nicaragua, particularly the enforcement of contracts is a serious obstacle to investment. On the whole, the legal system is cumbersome, and enforcement of judicial determinations is uncertain and sometimes subject to non-judicial considerations. The jurisdiction can be subjected to corruption and political influence.'[42]

An organization that is willing to offer the lower-income households access to credit for housing has to find ways to deal with these and other problems in their screening, monitoring and enforcement process. To find out how microfinance of housing programs in Nicaragua deal with the problems of the screening, monitoring and enforcement process will be discussed in the chapters 5 to 7.

[41] Ferguson (2001), *Profile II Nicaragua*
[42] <URL:http://cf.heritage.org/index/country.cfm?ID=107>

Chapter 4 Loan product

This chapter discusses different aspects of the loan products the five different credit organizations offer in Nicaragua. The five organizations that were studied for this research are CEPAD, HABITAT, ACODEP, CEPRODEL and AFODENIC. The first paragraph of this chapter gives a short introduction of these five organizations. Further, the three different features (loan size, loan term, interest rate) of the loan products and how the different credit organizations have filled in these features are analyzed. Then, the main objectives of the credit organizations and the extent to the organizations have accomplished the main objectives with the loan products they offer will be discussed. Based on the describtion the loan products and the main objectives of the microfinance of housing programmes some lessons for new microfinance of housing programmes can be drawn

In § 4.2, the size of the loan products and the difference between the size of the loan products for housing improvement/expansion and the construction of new units will be set forth. Pargraph 4.3 describes the term of the loans and the (monthly) payments and the difference between the two different loan products (housing improvement/expansion and construction of new units) with regard to the terms will come forward. In § 4.4 different aspects concerning the interest rate the organizations charge their clients will be described and explained. Then, in § 4.5 the main objectives of the programs will be discussed. Finally, in § 4.6, some conclusions will be drawn.

§ 4.1 The credit organizations

Table 1 presents the foundation date of the housing program (not the credit organization), the type of institution, the stated mission of the organization, the loan products the organizations offer and the overall repayment rate of their housing program. A subdivision is made between two basic housing finance products, namely a loan for the improvement/expansion of housing (indicated as “improvement”) or a loan for the construction of a new unit (indicated as “construction”). The repayment rate of the housing program of CEPAD is not yet known since their housing program was founded only a couple of months before we interviewed the executive of the organization. He stated that a default rate of 5%-7% (=repayment rate of 93%-95%) would be acceptable to them.[43]

[43] Lescano (2000), CEPAD

Table 1 Foundation Date, Type of Institution, Mission, Loan Products and Repayment Rate

	CEPAD	HABITAT	ACODEP	CEPRODEL	AFODENIC
Foundation Date	2001	1992	1998	1990	1998
Type of Institution	NGO	NGO	NGO	NGO	NGO
Mission	"Help develop the communities, the housing conditions and the economic capacity of their clients"	"Like an expression of Christian love, we develop communities with Nicaraguan families by selfconstruction of basic, secure houses."	"Improve housing, embody the woman in productive activities, help develop the enterprise and economic capacity of the clients"	"Contribute, in cooperation with population, to alleviate poverty by development of cre- programs and local projects (developing possibilities for people to participate in improving living conditions)"	"Give answer to the need for houses in Juigalpa"
Loan Product(s)	Improvement and Construction	Construction	Improvement and Construction	Improvement and Construction	Construction
Repayment Rate	unknown	90%	97%	97%	95%

Sources: representative R. Lescano of CEPAD housing program, representative E. Padillo of HABITAT housing program, G. Hernandez Montiel representative of ACODEP housing program, representative of CEPRODEL housing program, representative of AFODENIC housing program. The mission statement of HABITAT is from their brochure.

CEPAD, ACODEP, CEPRODEL and AFODENIC initially began as microcredit initiatives for small and micro-enterprises. In a later stage, CEPAD, ACODEP and CEPRODEL broadened their lending portfolio to offer specialized housing finance products for new housing construction and home improvement projects, because they noticed that many micro credit clients used their loan for housing. AFODENIC started their microfinance of housing program at the same time they founded their organization. All five programs draw on their experience in microfinance to respond to an increasing demand for housing credit among clients. Technical assistance includes evaluation of home improvement plans and costs, title verification, and construction monitoring. ACODEP and CEPRODEL explicitly stated that together with the borrower they evaluate the home improvement plans and costs before the disbursement of the loan.[44] CEPRODEL evaluates with the borrower the plan and costs of improvement, the costs of the households, the total income of the household and what the borrower can afford for a loan.[45] All organizations verify the land title for the construction of new units, whether these rights are para-legal or full legal. HABITAT builds the houses together with the borrower to increase involvement. The borrower is the supervisor of the construction from a social point of view.[46] This is to make sure that the house is built according to the borrower's needs. The house is constructed in cooperation with volunteers from for example other Christian organizations or the church. [47] AFODENIC makes the borrower construct his own house. They believe that a self-help construction increases the involvement of the borrower.[48] This may lead to an increase in the repayment rate. Moreover, a self-help construction lowers the costs substantially. As a comparison, the lowest commercially built 36m2 "basic" house sells for $11,000. AFODENIC offers loan sizes between $1500 and $2000, which is the amount needed for a self-help construction.

§ 4.2 Loan size

The minimum and maximum loan size for housing improvement/expansion are set forth in table 2.
In table 3 an overview is given of the minimum and maximum loan sizes for building new units. The amounts in table two and three are all in USD, as given by the organizations themselves.

Table 2 Loan sizes for housing improvement/expansion

	CEPAD	ACODEP	CEPRODEL
Loan Size			
Minimum	$500	$500	$200
Maximum	$1500	$750	$2500

Sources: data gathered from interviews with representatives of the housing programs of CEPAD (R. Lescano), ACODEP (G. Hernandez Montiel) and CEPRODEL (representative of microfinance of housing program)

44 Hernandez (2002), ACODEP and representative of microfinance of housing program (2002), CEPRODEL
45 Representative of microfinance of housing program (2002), CEPRODEL
46 Padillo (2002), HABITAT
47 Brochure (2002), HABITAT
48 Representative of microfinance of housing program (2002), AFODENIC

Table 3 Loan Sizes for the construction of new units

	CEPAD	HABITAT	ACODEP	CEPRODEL	AFODENIC
Loan Size					
Minimum	$1500	$2700	$3000	$4000	$1500
Maximum	$2000	$3200	$5000	$5000	$2000

Sources: data gathered from interviews with representatives of the housing programs of CEPAD (R. Lescano), HABITAT (E. Padillo), ACODEP (G. Hernandez Montiel), CEPRODEL and AFODENIC

Overall, there is a large difference between the minimum and maximum loan size for the improvement/expansion of housing. CEPRODEL even offers loan products for improvement that can vary between $200 and $2500. This offers enormous flexibility towards their clients, the clients can borrow according to their economic capacity and the exact amount they need for their improvement plans. Furthermore the smaller loans are affordable for the low- and moderate-income households. CEPRODEL offers the smallest loan size of $200 and thus are able to reach the poorest households of the five programs.

The loan products for the construction of new units offer less flexibility. The loan sizes can be adjusted to the economic capacity of the clients within limited boundaries and the lower-income households cannot afford these loan products (see further § 4.5).

§ 4.3 Loan term

As set forth in table 2 and 3, there can be quite a large difference between the loan sizes for housing improvement/expansion and the construction for complete new units. With the exception of the loan product of HABITAT and AFODENIC, the loan term and the monthly repayments of the loan products the other organizations offer depends on the financial capacity of the clients. In this case, the loan term refers to the time frame within the loan must be repaid.

CEPAD has a maximum term of 36 months for the loans for housing improvement/expansion and a maximum term for the loans for the construction of houses of 6 years. HABITAT has a fixed loan term of 10 years that applies to all their clients. The most important rule for them is that the amount of the monthly repayment cannot exceed 20% of their client’s income. So the client has to have the financial capacity to repay the loan within 10 years and without exceeding the amount of monthly repayments of 20% of their income. The loan term of ACODEP varies between 24 and 48 months for the improvement/expansion of houses and 5 to 10 years for the construction of new units. CEPRODEL has a maximum loan term of 36 months for the improvement/expansion of houses and a maximum of

7 years for the construction of houses. AFODENIC has a fixed loan term of 6 years that applies to all of their clients.
In conclusion, HABITAT and AFODENIC have a fixed loan term of ten and six years. The other organizations have only set a maximum loan term.

§ 4.4 Interest rate

The real rate interest rate that the organizations charge their clients varies between 0% and 18% annually. HABITAT believes that 'it is a biblical principle that you don't ask interest from your brother'.[49] This is why they charge 0% interest from their clients. CEPAD has an interest rate of 12%, CEPRODEL 12%, AFODENIC 6% and ACODEP 17,63%.
There is a maximum on what the organizations can charge as an interest rate. Since recently, there is a law in Nicaragua which states that the average of what private banks (with the exception of interest on credit cards) charge as an interest rate from their clients, is the maximum that organizations without profit making goals are allowed to charge their clients[50]. This year the maximum interest rate was fixed at 17,63%. All the five credit organizations are NGOs (see table 1) without profit making goals. Thus, they have to adhere to this maximum interest rate.
The programs that charge an interest rate believe that even its poorest clients can afford the interest rate and therefore the programs do not lower the interest rate for poorer clients that have a smaller financial capacity. Except for ACODEP, the programs do charge their clients a below market interest rate.

§ 4.5 Main objectives

The choice of a program's main objective can influence the emphasis the program places on efficiency and the strictness of the enforcement of repayment. When impact or outreach is the main objective, the social mission to reach out to the poor may be at the cost of achieving sustainability. When sustainability is the main objective, the reduction of costs and the enforcement of repayment are extremely important. However, not one *main objective* could be categorized as sustainability with a banking focus because the programs are all NGOs and have no profit goals. In this paper sustainability is viewed as an important means to achieve outreach, not as an end in itself. The main objectives of the programs incline towards either outreach or impact. This paragraph discusses the programs' main objectives combined with the level of sustainability of the programs.[51]

[49] Padillo (2002), HABITAT
[50] Manager of microfinance of housing program (2002), Nitlaplan
[51] I primarily discuss the depth of outreach since the data gathered from the interviews are not elaborated enough on the breadth of outreach.

CEPAD has a mission with a social nature, but they charge an interest rate that is sufficient to cover the operating costs. They believe that an interest rate of 12% is the equilibrium of what clients can afford and what is necessary to maintain their operational sustainability.[52] This shows that, besides the social mission to reach out to the poor, operational sustainability is an important objective.

HABITAT started out as an advocacy group for low-income households' right to access shelter. Their mission is to develop communities, like an expression of Christian love, with the Nicaraguan families by self-construction of basic, secure houses. Their strong social mission dominates and is more important than the sustainability of the program. They have a heavy subsidized program with a soft budget constraint. If a program has a soft budget constraint, the subsidization will keep on flowing to fill up the gaps and the deficits of the program's budget. As a result, there is not a sufficiently strong stimulus to maximum effort within the institution and weaker performance is tolerated. This may result, for example, in a lack of effort that is put in the collection of the repayments. This could be a reason that they have the lowest repayment rate. In fact they have a monthly overdue repayment of 30%.[53]

ACODEP, CEPRODEL and AFODENIC all have a strong social mission, but they also operate in a sustainable way. They charge an interest rate that is high enough to cover the operating costs. ACODEP stated that their objective is a combination of the social mission to reach out to the poor and the financial objective to maintain the sustainability of all their projects. [54] Their housing project has achieved operational sustainability. They charge an interest rate according to the operating efficiency of the program and the maximum allowed by law.[55] Their interest rate is almost 18%, the highest of all the programs, and they have a repayment rate of 97%. This may indicate that they place even more emphasis on efficiency and sustainability than CEPAD, CEPRODEL and AFODENIC. CEPAD stated that they would accept a repayment rate of 93%, which could indicate that they place less emphasis on efficiency than CEPRODEL and ACODEP. CEPRODEL has a 12% interest rate that covers the operating costs and a repayment rate of 97%, which could indicate that they also believe that the efficiency and sustainability of their program is very important. AFODENIC charges their clients the lowest interest rate of the programs that have achieved operational sustainability. AFODENIC also claims that their housing project has achieved operational sustainability, but they charge an interest rate of only 6% annually.[56] The reason for their relatively low interest rate could be that AFODENIC (in contrast to the other organizations) offers very limited technical assistance in the building process,

[52] Lescano (2002), CEPAD
[53] Padillo (2002), HABITAT
[54] Hernandez (2002), ACODEP
[55] Hernandez (2002), ACODEP
[56] Representative of microfinance of housing program (2002), AFODENIC

which may lower the costs. Further, they have an almost standardized loan product, with a small varying loan size and a fixed loan term, which may also lower the costs. [57]

All the programs aim to reduce poverty and offer access to credit for housing for the lower-income households. The question is, however, to which extent the programs have achieved depth of outreach (reached the poorest households). HABITAT, ACODEP and CEPRODEL believe that the monthly repayments cannot exceed the 20% of their income.[58] CEPAD believes that a household can afford 15%-20% monthly on housing.[59] AFODENIC believes that a household can afford to spend 25% of their monthly income on housing.[60] Thus, on average a household can afford a loan with monthly payments plus interest set within a fixed maximum loan term, that does not exceed 20% of their monthly income they can afford to spend on housing. For the average low-income household (with an average monthly income of approximately $41, see §3.3) this means that they can afford approximately $8 per month on housing. When looking at the loan size, loan term and interest rate of the housing improvement products CEPAD, ACODEP and CEPRODEL offer, only CEPRODEL seems to come very close to reaching a large part of the low-income households with their smallest loan product (a loan size of $200, a loan term of 36 months, and an annual interest rate of 12%) for improvement. With this loan product, a borrower would have to make monthly repayments of $5.5 (200/36) during a 36 months loan term. Within the first year he has to pay a monthly interest of $2 (0.12*200/12). This sums up to, within the first year, a monthly repayment of approximately $7.5. This is an affordable amount for the average low-income household. The smallest loan product of ACODEP has a loan size of $500, a loan term of 48 months and an annual interest rate of approximately 18%. With this loan product, a household would have to make monthly repayments of approximately $18 within the first year. This implies that a household with minimum a monthly income of approximately $90 can afford this loan product. This excludes a large part of the lower-income households. CEPAD also does not reach the larger part of the low-income households with their improvement loan products. Moreover, they require a minimum monthly income of $107. This, however, will be discussed further in chapter 5. The limited depth of outreach of the improvement products of ACODEP and CEPAD can be an indication that its main objective is outreach, rather than impact.

The loan products for construction are affordable to and more suitable for the moderate- and higher-moderate income households. Considering the average income of low-income households, the monthly percentage of their income they can afford to spend on housing, the minimum loan sizes (see table 3), the annual interest rates and the maximum allowed loan terms (see § 4.3), they do not have

[57] The reason for their relatively low interest rate was, however, not verified during or after the interview.
[58] Hernandez (2002), ACODEP, Representative of microfinance of housing program (2002), CEPRODEL, Padillo (2002), HABITAT
[59] Lescano (2002), CEPAD
[60] Representative of microfinance of housing program (2002), AFODENIC

the financial capacity to repay a loan for the construction of a new unit. Moreover, the larger loan products with the longer loan terms do not fit the survival strategies of the poor. They are more suitable for a moderate-income household. Thus, the loan products for construction only reach the moderate- and higher-moderate income households. HABITAT and AFODENIC only offer loan products for construction and do not reach the lower-income households. This can be an indication that its main objective is outreach, rather than impact.

§ 4.6 Conclusions

This chapter discussed: the loan products offered by the five microfinance of housing programs, their main objectives and the extent they have achieved sustainability and depth of outreach. [61] It showed that, except for HABITAT, all the programs are successful in maintaining an operational sustainability. The study of the loan size, loan term and interest rate of the five different microfinance of housing programs has shown that only CEPRODEL comes close to reaching the majority of low-income households. CEPAD and ACODEP also offer smaller improvement products, but they are not able to reach the large part of lower-income households. The smallest loan products are offered by CEPRODEL, which may imply that its main objective is impact. The limited depth of the outreach of HABITAT, CEPAD, ACODEP and AFODENIC can be an indication that the main objective of these programs does not incline towards impact but more towards outreach.

[61] An overview of the facts can also be found in table 4, appendix 4

Chapter 5 Screening

Adverse selection is a problem created by asymmetric information and occurs when the potential borrowers who are the most likely to produce an undesirable outcome are the ones who most actively seek out a loan and are thus most likely to be selected. The risk and costs of adverse selection can be very high for a financial institution that is willing to lend to the poor because there is often a lack of standard collateral to screen a potential borrower. Further, the screening process can be more costly for a microfinance institution because the majority of low- and moderate-income households work in the informal sector, which makes it hard to verify the financial capacity of a borrower to repay a loan.

Traditional mortgage finance institutions require conditions like formal employment, a fixed income, an employer statement and full legal land title. Low- and-moderate income households, however, often operate in the informal sector, are self-employed, often lack full legal land title and enough money and worthy goods that can be used as collateral. Thus, low- and-moderate income households are usually excluded from traditional mortgage finance. A microfinance of housing program that is willing to lend to the poor has to find ways to deal with these problems, and screen out the bad credit risks and reduce the risk of adverse selection. This chapter discusses the way the programs deal with the screening issue. In § 5.1 the first contact of the lending programs with the borrower is discussed. The selection criteria that are used by the programs to select a good credit risk are presented and discussed in § 5.2. Finally, in §5.3, some conclusions will be drawn from the description of the screening process of the programs.

§ 5.1 First contact

The first contact can tell something about the way the program brings in new clients. The potential borrowers who are the most likely to produce an undesirable (adverse) outcome (the bad credit risks) are the ones who most actively seek out a loan and are thus most likely to be selected. A program has to find a way to bring in their potential borrowers and at the same time reduce the risk of adverse selection. The process of lending is explained to the potential client at the first contact. Clarity in the explanation process may help to clear away any problems that may occur during the repayment process because the borrower did not understand certain aspects of the lending process. For example, an important aspect that needs to be made very clear during the first contact is that the loans for housing are not donations. In Nicaragua this is important because prior to 1990, the economy in Nicaragua was organized according to socialist principles under the Sandinista regime (1979-1990). The government made loans to rural and urban cooperatives, through state banks and governmental organizations. Since the government issued them, loans were often regarded as grants and repayment was not strictly enforced. Current micro-credit programs have therefore placed a large emphasis on teaching clients that loans must be re-paid. This is particularly important for organizations involved in more than lending. If the organization is known for its social programs, clients may be inclined to view them as benevolent agencies and not repay loans.

Potential borrowers at CEPAD have to apply for a loan. CEPAD interviews the potential client at the first contact. During this interview the potential client is asked why they want the loan, and what it is used for. The process of lending is also explained during this interview.[62]

The first contact with the client is a visit from HABITAT to their client. During this visit they verify the data after the client has applied for a loan through a form. These data and the verification of these data will be handed over to a committee that will select new clients based on these data. If a client is selected, there will be a meeting at which the lending process will be explained, what HABITAT does, and how it operates. They claim that they do not know the client ahead, but that nepotism does occur.[63] For example, a person from HABITAT that has to screen potential borrowers may select a borrower solely on the basis of their friendship. Nepotism could increase the risk of adverse selection and may result in a lack of effort that will be put in the collection of repayments because the borrower is a friend. This could also have a negative effect on the repayment rate.

ACODEP uses a system that a good client recommends a new potential client. They use this 'internal recommendation mechanism' to reduce the risk of adverse selection. This mechanism draws on the local knowledge the borrowers have on the community members to recommend a new good borrower.

CEPRODEL organizes the first contact in a meeting at which the lending process is explained. According to them, there never have occurred any problems due to misunderstandings of the clients on the lending process.[64] They use the same mechanism as ACODEP, at which a client recommends a new potential client. But, potential clients can also apply without connections with a client of CEPRODEL.

AFODENIC only lends to clients who they know from previous repaid small microfinance loans. Their first contact is organized in a meeting at which they explain the lending process to a group of interested clients. One of the aspects that is made very clear during this meeting, is that the construction of new units are not donations.[65]

§ 5.2 Selection criteria

Certain conditions are required if a client wants to apply for a loan. The selection criteria are used by the organization to screen out the bad credit risks. One condition is the same for all credit organizations if a client applies for a loan, they must have Nicaraguan identification documents. The five credit organizations use the following requirements if a client wants to apply for a loan:

[62] Lescano (2002), CEPAD
[63] Padillo (2002), HABITAT
[64] Representative of microfinance of housing program (2002), CEPRODEL
[65] Representative of microfinance of housing program (2002), AFODENIC

CEPAD offers improvement loan products and construction loan products. For both loan products they require:

a minimum monthly income of $107

a maximum monthly income of $214 (3000 Cordoba)

a minimum residence of 5 years within the same place.

For the construction loan products they require land ownership.[66]

HABITAT only offers loan products for the construction of new units. They require:

a fixed income, with a minimum monthly income of $142 (2000 Cordoba)

a maximum monthly income of $285 (4000 Cordoba)

a minimum length of employment of 3 years

an employer's statement

a minimum household of three persons (minimum one child)

the client cannot own another house

land ownership[67]

ACODEP's conditions for both loan products are:

a steady income

a minimum length of employment of one year

For the loan products for the construction of new units they require:

land ownership

a minimum monthly income of $150

a maximum monthly income of $250[68]

CEPRODEL's conditions for both loan products are:

a minimum residence of one year

good community references

For loan sizes above $1000, they require land ownership.[69]

AFODENIC's conditions are:

a minimum monthly income of $142 (2000 Cordoba)

a previous small loan which is successfully repaid

the client cannot own another house

[66] Lescano (2002), CEPAD
[67] Padillo (2002), HABITAT
[68] Hernandez (2002), ACODEP

land ownership[70]

In comparison to microenterprise finance, the income requirements of microfinance of housing are a special feature. A microenterprise loan is used for the investment in the microenterprise from which proceeds the loan is repaid. The loan from a microfinance of housing program is used for consumption: to acquire housing. Therefore, the loan has to be repaid from other income resources. A program has to verify the income resources of a household to ensure that a household has the financial capacity to repay the loan to reduce the risk of adverse selection.

Except for CEPRODEL, all the organizations require a fixed minimum income. CEPAD has set a minimum income of $107, which could mean that the low-income households have access to these loan products. However, the low-income households cannot afford these house construction loans, considering the loan sizes, the maximum loan term and the interest rate. HABITAT, ACODEP and AFODENIC have set a minimum income of $142 and above, which means that the only the higher low- and moderate-income households have access to these loan products. CEPRODEL has not set a minimum income. However the sizes of their construction loan products are so high, that the average moderate-income households do not have access to this loan product because they simply cannot afford it. A maximum income is set by CEPAD, HABITAT and ACODEP to exclude the higher-income households from their program. This is necessary because the programs, except for ACODEP, have kept their interest rate below market interest rate (see §4.4) and this may attract the higher-income households who do have access to traditional mortgage finance but who are looking for 'cheap' loans.

CEPAD uses a committee board that verifies the client financial capacity to pay. These are local committee boards that operate in a specific neighborhood. They use the information and knowledge that the community members have on each other to screen out the bad credit risks. They verify the creditworthiness of the client and the client's willingness to pay by asking questions about the responsibility sense of the client and their possible repayment behavior of previous loans or any other debts that the client may have.[71] HABITAT believes that it is very important to select the borrower with sufficient economic capacity. To them the financial capacity of a client to repay and to verify their financial capacity is the most important aspect in the screening process to ensure the repayment of the loan. [72] The financial capacity to repay a loan is verified through an employer's statement to verify income. They pay, however, little attention to the client's willingness to repay a loan. ACODEP verifies the financial capacity of the client through the employer, and in case of self-employment they pay the client a visit to check their enterprise. ACODEP also verifies the client's responsibility sense

[69] Representative of microfinance of housing program (2002), CEPRODEL
[70] Representative of microfinance of housing program (2002), AFODENIC
[71] Lescano (2002), CEPAD
[72] Padillo (2002), HABITAT

by neighborhood's references. They ask questions about heir private life, like if the person is an alcoholic, to decrease the risk of adverse selection.[73] CEPRODEL asks for a copy of the last salary payment in case the client has a formal job with a fixed income. If the client is self-employed or works in the informal sector, they verify this by a visit to their neighborhood and ask the neighbors questions about the creditworthiness and sense of responsibility of the client. [74]

Except for HABITAT, the organizations all accept an income from self-employment. HABITAT requires a fixed income from their clients and they have to be employed in the formal sector, a minimum length of employment of 3 years and an employer's statement. The result of these conditions is that a large part of the typical low- and moderate-households are excluded from their program, even if they have a minimum income of $142 because a large part of the low- and moderate-income households is self-employed.

All the organizations require land ownership for the construction loans. However, documents of full legal land ownership are not always available in Nicaragua. The ownership of land often lacks official registration (see §3.3). Therefore, CEPRODEL, ACODEP and AFODENIC also accept para-legal rights of land ownership. Para-legal land title refers to various combinations of proof of ownership short of full title including bill of sale from previous holder of property and receipts for payment of property taxes and other governmental charges related to the property. The document of land ownership is also used as collateral. The collateral the organizations use will be discussed further in chapter 7.

CEPAD and CEPRODEL require a minimum residence of respectively five years and one year. The minimum residence condition can be used for two reasons. First, this condition lowers adverse selection and moral hazard. Moral hazard is the risk that a borrower might engage in activities that are undesirable from the lender's point of view because they make it less likely that the loan will be paid back. The possibility and risk that the client will move in the near future is an undesirable activity for the lender, and makes it less likely that the loan will be repaid. Second, CEPRODEL states that they require minimum residence of one year to make sure that the neighborhood knows the client well enough when they verify the client's data in the neighborhood.[75] CEPRODEL also uses a system of clients recommending new potential clients. They use the references of a good client on the creditworthiness and sense of responsibility of a potential new client. Other clients almost always recommend the clients who apply for a loan. They believe that the community references are the most important mechanism they use to screen out the bad credit risks.[76]

The clients who can apply for a loan for the construction of a new unit have to have a good credit history from a previous small loan at AFODENIC. This internal recommendation system by credit

[73] Hernandez (2002), ACODEP
[74] Representative of microfinance of housing program (2002), CEPRODEL
[75] Representative of microfinance of housing program (2002), CEPRODEL

history is their most important mechanism they use to reduce the risk of adverse selection. [77] This could be compared to a bank that invests in a *long-term relationship* to reduce the costs of screening. If the borrower who applies for a loan has borrowed previously, the bank already has got a record on the borrower's loan repayments, which makes it easier to screen out bad credit risks and reduce the risk of adverse selection (see §1.2). The internal credit history mechanism that AFODENIC uses could lower the costs of screening considerably.

The group lending model is the most discussed mechanism that is used by microenterprise programs to deal with the problem of adverse selection, moral hazard and enforcement. By drawing on local information networks and by letting borrowers select their own groups based on the knowledge they have on each other, safe and risky borrowers are separated from each other (see §1.4). However, not one microfinance of housing program uses the group lending model. The loans are made to individuals with individual loan contracts. CEPRODEL indicated that the most important reason that they do not use solidarity group is because it is not necessary, there are collateral substitutes (e.g. co-signer).[78] ACODEP believes that the Nicaraguan people are too individualistic and therefore solidarity groups would not work.[79] AFODENIC stated that solidarity groups would not work because Nicaraguan people would not want to cooperate with such a system.[80] Further, 'there is no culture for group lending contracts, people only want to be hold liable for their own loan'.[81] CEPAD does not use the group lending model because first, they believe that Nicaraguan would not cooperate with such a system. Second, because the loan sizes are too large to be repaid by group members. Third, because it can hurt a good borrower who does repay his loan and it is not necessary because there are enough collateral substitutes.[82] The programs all use individual lending method. They have found ways to deal with the problem of adverse selection without the use of solidarity groups.

Klinkhamer indicates in her research that an important best practice of housing programs is the requirement that potential borrowers save at a rate equivalent to their future repayment for a period (e.g. 6 months to a year) before the borrower can obtain a loan. This savings period gives the organization the opportunity to build a relationship with the borrower. By establishing a relationship during a savings period, an organization can learn more about the borrower's characteristics (willingness and ability to repay a loan) that can lead to a decrease in screening and monitoring costs (see §2.3). The data gathered from the interviews are not elaborated enough on this subject, but CEPRODEL stated that they believe that savings may be very important.[83] CEPAD stated that they do

[76] Representative of microfinance of housing program (2002), CEPRODEL
[77] Representative of microfinance of housing program (2002), AFODENIC
[78] Representative of microfinance of housing program (2002), CEPRODEL
[79] Hernandez (2002), ACODEP
[80] Representative of microfinance of housing program (2002), AFODENIC
[81] Representative of microfinance of housing program (2002), AFODENIC
[82] Lescano (2002), CEPAD
[83] Representative of microfinance of housing program (2002), CEPRODEL

not offer savings programs.[84] The other organizations have not indicated that they use savings as a mechanism to reduce the risk of adverse selection.

§ 5.3 Conclusions

This chapter discussed the screening process and the screening mechanisms that the programs use to reduce adverse selection. [85] The local committee boards and the local references that CEPAD, ACODEP and CEPRODEL use are good examples of the possibilities to use local information networks beyond the use of solidarity groups to reduce the risk of adverse selection. CEPAD uses the local knowledge of the local committee boards as a mechanism to screen the potential borrowers. ACODEP and CEPRODEL use an internal recommendation system as a mechanism to bring in new borrowers and reduce the risk of adverse selection. CEPRODEL and ACODEP use also local information networks to gather information on the financial capacity and willingness of a potential borrower to repay a loan.

Except for HABITAT, the programs allow an income from the informal sector. The minimum and maximum required income levels by the organizations depend on the households the program aims to reach. A maximum income level might be necessary to set to exclude higher-income households.

[84] Lescano (2002), CEPAD
[85] An overview of the facts can also be found in table 4, appendix 4

Chapter 6 Monitoring

One of the reasons that costs of lending are so high for a microfinance program is that there is often a lack of standard collateral to reduce the moral hazard. A program can overcome the problem of moral hazard by monitoring the borrowers' activities. This chapter discusses how the housing finance programs monitor their clients to reduce the moral hazard. In § 6.1 the mechanisms that the organizations use to monitor their clients will be discussed. Then, in § 6.2 some conclusions will be drawn from the description of the monitoring process of the program.

§ 6.1 Monitoring mechanisms

Banks use standard collateral to reduce moral hazard. The collateral will be retained if the borrower is not able to repay a loan. This threat can make it less likely that a borrower might engage in activities that are undesirable (immoral) from the lender's point of view because he has collateral to lose if he is not able to repay the loan. A microfinance program that lends to the poor often faces the problem of a lack of standard collateral. Chapter 1 discussed the different mechanisms that microfinance programs use to reduce the costs of monitoring and reduce moral hazard without the use of standard collateral. These mechanisms are: the group lending contract, dynamic incentives and collateral substitutes.

The collateral (substitutes) the programs use to reduce moral hazard and enforce repayment will be discussed in the next chapter. Another mechanism to reduce the moral hazard is the use of dynamic incentives. The idea is that borrowers can begin by borrowing just small amounts and then the lender can increase the loan size if they are satisfied with the repayment behavior of the borrower. This is called progressive lending, by which the threat that the borrower can be cut off from any future lending when loans are not repaid is exploited. Dynamic incentives work better if there is low mobility in the area. If people in an area come and go, the moral hazard can increase because it is hard to keep track of the movers. A program can reduce the risk that the borrower will move during the loan term by requiring a minimum residence within the same area. As discussed in chapter 5, CEPAD and CEPRODEL require a minimum residence of respectively five years and one year. CEPAD most likely requires the minimum residence to reduce moral hazard[86], but CEPRODEL requires a minimum residence to make sure that the community members have enough knowledge about the borrower to improve the screening process. ACODEP is the only program that explicitly stated that they use a progressive lending process for the improvement of houses. They make sure that their housing improvement loans are sequential. For example, first a client can apply for a loan to improve the floor. Then, if he has successfully repaid this loan, he can apply for a loan to build a bedroom, etc.[87] Another striking advantage of the progressive lending mechanism is that lenders can test the borrowers in the

[86] This was not verified during the interviews
[87] Hernandez (2002), ACODEP

beginning period when loan sizes are still small. They can develop a long-term relationship with their clients and screen out bad credit risks before increasing the loan size.

As discussed in chapter 5, another mechanism that a program can use to reduce screening and monitoring costs is to develop a relationship during a savings period before the disbursement of a housing loan. By establishing a relationship during a savings period, an organization can learn more about the borrower's characteristics that can lead to a decrease in screening and monitoring costs. However, not one of the programs has indicated that they use mandatory savings as a monitoring mechanism.

A group lending contract can reduce monitoring costs. Members of a group have incentives to monitor each other and to take remedial action against another group member who mis-uses her loan because they are jointly liable for each other's loan. This can save a bank a lot of costs on visits to monitor the borrower. However, as discussed in chapter 5, not one organization use the group lending contract for their housing loans. Morduch and Armendariz suggest ways in which group lending might be helpful beyond the use of joint liability but by retaining the practice of meetings with clients in groups. First, by making the members of a group publicly repay during the meeting of a group can strengthen the strategic use of social pressure. Second, by meeting with groups of borrowers at scheduled times and at scheduled locations, costs can be reduced on the visits to the borrowers. Third, a group meeting can be used to tell the borrowers about sanctions that were taken against delinquent borrowers, thereby increasing the pressure to repay a loan. Fourth, group meetings can be used for education and training if necessary (see §1.4). Thus, a program can reduce the monitoring costs by meeting with groups of borrowers at scheduled times and at scheduled locations.

ACODEP explicitly stated that they structure their monitoring process by monthly meetings with clients in groups. At these meetings they ask their clients if there are any problems or difficulties with the repayment of the loan. But they also indicated that they use these meetings to establish a 'friendly' and 'strong' relationship between the organization and the client to reduce moral hazard. They believe that by establishing a friendly and strong relationship the risk of the client's unwillingness to repay a loan will be reduced.[88] CEPAD also stated that they have local group meetings to see if the loan product fits their needs, if there are any problems and what these problems are.[89] CEPRODEL stated that in some urban districts, groups organize themselves with appointed leaders. They also stated that the leaders of these groups are very important to them because they have a lot of knowledge and influence on the members of a group.[90] From this statement one can assume that they could use these leaders to monitor their clients and apply pressure on the members to enforce repayment if necessary. AFODENIC use groups as a form of continuous monitoring. They organize rural committees and groups to structure their communication. Leaders of the groups are appointed through whom the

[88] Hernandez (2002), ACODEP
[89] Lescano (2002), CEPAD

organization and the clients can communicate. By organizing meetings with the leaders of these groups they can learn more about any problems and if the loans are used properly. That way groups can be used as a communication tool and costs can be saved on visits to the borrowers individually. However, AFODENIC indicated that the use of groups only functions for their rural clients (not for their urban), because the rural communities are smaller and ties among the people are stronger. They even indicated that in the future they want to use these rural groups to organize the repayments.[91] An advantage of these 'group repayments' could be according to the theory of Morduch and Armendariz who suggest that making the members of a group publicly repay during the meeting of a group can strengthen the strategic use of social pressure (see §1.4).

All organizations believe in investing time to build a relationship. If an organization has a good relationship with the client the probability that the client is unwilling to repay is less likely. This reduces the moral hazard. CEPAD uses rural committee boards to maintain a relationship between them and a local group of clients. HABITAT offers technical assistance to build the houses. During this building contact there is a continuous intense contact between HABITAT and the client. They feel that this relationship between them and the client is important from a social point of view; they want to involve the client as much as possible so the house will fit his needs.[92] Thus, the importance of a good relationship between HABITAT and the borrower is not primarily to reduce moral hazard. ACODEP stated that they build a relationship during the monthly group meetings. CEPRODEL has not elaborated on how they build a relationship, but they did indicate that their contact with the borrower is during the evaluation of the plans and costs prior to the disbursement of the loan and during the routine check-ups at which they visit the borrower at their home a couple of times a year.[93] AFODENIC already has a relationship with their client, since they know their clients from previous loans. Still, they monitor their urban clients by routine visits at their homes to make sure that the loan is used for housing.[94] They have a long-term relationship with the borrower that they use to reduce the screening and monitoring costs. A bank also uses a long-term relationship and chooses to invest in a long-term relationship to reduce the costs of screening and monitoring (see § 1.2).

[90] Representative of microfinance of housing program (2002), CEPRODEL
[91] Representative of microfinance of housing program (2002), AFODENIC
[92] Padillo (2002), HABITAT
[93] Representative of microfinance of housing program (2002), CEPRODEL
[94] Representative of microfinance of housing program (2002), AFODENIC

§ 6.2 Conclusions

This chapter discussed different mechanisms and ways that could be used to reduce monitoring costs and decrease moral hazard.[95] Building a relationship with a borrower can decrease the probability that a client will be unwilling to repay a loan. AFODENIC has already established a relationship with the borrower before the disbursement of a housing loan. The other organizations try to build a relationship during the loan term. Only HABITAT establishes a relationship from a social point of view, the other programs invest in a relationship to reduce moral hazard. Another possibility would be to build a relationship during a savings period prior to the disbursement of a loan. This gives the organization the opportunity to learn more about the characteristics of the borrower that can lead to a decrease of the screening and monitoring costs. It is also advisable to reduce monitoring costs and save costs on visits to individual borrowers. Morduch and Armendariz suggest ways in which group lending might be helpful beyond the use of joint liability but by retaining the practice of meetings with clients in groups. By meeting with groups of borrowers at scheduled times and at scheduled locations, costs can be reduced on visits to the borrowers. ACODEP, CEPAD and AFODENIC employ this method.

Another mechanism to reduce the moral hazard is the use of dynamic incentives. Many microfinance programs successfully use progressive lending as a supplement to collateral substitutes to reduce moral hazard. ACODEP is the only program that explicitly stated that they use this mechanism.

[95]An overview of the facts can also be found in table 4, appendix 4

Chapter 7 Enforcement

The last problem lenders face when lending to poor households is the enforcement of loan contracts. The problem of enforcement arises, not from information asymmetries but from the lender's limited ability to apply sanctions against a delinquent borrower. First, if a borrower refuses to repay, there is the possibility that the legal system does not work very well in a developing country and second, the poverty of the borrower can restrict effective sanctions.

Traditional commercial mortgage institutions use standard collateral. In this case, standard collateral refers to the land with full legal land title and house that can be used, if necessary, to enforce a borrower to repay. If a borrower refuses to repay the loan, the collateral can be sold to reduce the bad consequences of adverse selection. As was mentioned before, the problem for the microfinance of housing institutions is that standard mortgage collateral is not always available in developing countries. For example, land ownership often is not registered correctly in developing countries, and this is also a problem in Nicaragua. Therefore, microfinance of housing programs sometimes have to use other forms of collateral.

Collateral can take various forms, depending on the legal system and local practice of the country. It can range from a standard mortgage as collateral to para-legal ownership of the land. In some cases, however, alternative forms of collateral are required. Alternatives can include co-signers and mandatory savings. For the smaller loans, almost anything can go as collateral, as long as it is of value to the borrower.

The collateral (alternatives) used by the microfinance of housing programs will be discussed in § 7.1. The sanctions taken by the organizations if a borrower is in default will be discussed in § 7.2. Then, in § 7.3 Isome conclusions will be drawn from the description of the enforcement process of the programs.

§ 7.1 Collateral

CEPAD uses two different forms of collateral. For their smaller housing improvement loans they use a co-signer as collateral. For their larger construction loans they use the house and land with full legal land title as collateral. A co-signer is a person who, besides the borrower, signs the loan contract that states that he can be held liable in case the borrower defaults on his loan. In case of default, the co-signer has to repay the outstanding loan. CEPAD requires some conditions for the co-signer. The co-signer, who can be held liable for the loan, cannot be a member of the family because they are often employed within the same family business. Then, if the borrower declares his inability to repay his loan due to loss of income, the co-signer may also be unable to repay the loan. The co-signer also must have an income that is twice the income of the borrower. Furthermore, the co-signer himself also has to offer something valuable that can be used as collateral. The required value of the alternative used as collateral from the co-signer depends on the loan size.[96]

HABITAT uses the house and land as collateral. They require full legal land title. However, if the client has not got full-legal rights, he has to supply a co-signer who does have full legal land title. They prefer the co-signer to be a member of the family, because they believe that family members have the closest ties and therefore can apply the most psychological pressure on the borrower.[97]

ACODEP uses the house and land as collateral, a co-signer and anything that is of value to the borrower as collateral. For the smaller loans, anything that is of value to the borrower can be used as collateral. Usually these are electrical appliances. The value of the collateral has to be twice the value of the loan. If the borrower has not got anything of value to offer, a co-signer is required. The co-signer has to have the financial capacity to repay the loan if a borrower is in default. For the larger housing construction loans, land and house as collateral is required. The land title can range from full legal to para-legal ownership of the land. However, if the borrower only has para-legal rights, a co-signer is required. The co-signer has to have the financial capacity to repay the loan if the client is in default. The co-signer can be family, a friend or a neighbor, as long as he has got the financial capacity to repay.[98]

CEPRODEL uses the house and land as collateral, a co-signer and anything that is of value to the client. For the smaller loans (the loans smaller than $1000) they use anything that is of value. Usually, these are electrical appliances. However, the value of the collateral used has to be 125% the value of the loan. For the larger loans, the loans larger than $1000, a mortgage is required with full-legal land title.[99] However, they do make exceptions (this is very rare) for some of their clients who live in rural places and only have para-legal rights. In this case, they use the house and the furniture as collateral.[100] Furthermore, they use a co-signer who is held liable for the client's loan. If the co-signer has not got a stable income, his house is also used as collateral.[101]

AFODENIC uses the new unit that is being built from the loan, and a co-signer as collateral.[102] Most of their clients live in rural places and often do not have full-legal land title. Therefore, they use a co-signer in addition to the house as collateral.

All the organizations use a co-signer as a collateral substitute. The co-signer can vary from a friend to a family member to a neighbour. It is unclear what the incentives for the co-signer are to be a co-signer. If the co-signer is a relative it may be out of loyalty to blood kin. To survive in a country whose history is replete with war, political conflict, and economic upheaval, Nicaraguans turn to the

---

[96]Lescano (2002), CEPAD
[97] Padillo (2002), HABITAT
87 Hernandez (2002), ACODEP
[99] Representative of microfinance of housing program (2002), CEPRODEL
[100] Representative of microfinance of housing program (2002), CERPODEL
[101] Representative of microfinance of housing program (2002), CEPRODEL
[102] Representative of microfinance of housing program (2002), AFODENIC

one institution they feel they can trust: the family. For both men and women, loyalty to blood kin is frequently stronger than those of marriage. [103]

Banerjee, Besley and Guinnane [104] have built a model of credit cooperatives designed to provide monitoring incentives. This model can also explain what the incentives of a co-signer can be. The model is of a Principal (the bank), Supervisor (the non-borrowing cooperative member), and an Agent (the borrower). In this model a credit cooperative has two members, a borrowing and non-borrowing member. The model provides an efficient way to induce monitoring of borrowers. For such monitoring to be effective, the cooperative's structure must create incentives for its members to monitor one another. Banerjee, Besley and Guinanne suggest ways in which this can be done. They suggest that a part of each loan (to a borrower) may be financed by another cooperative member (non-borrowing), so that if the borrower defaults, then the other co-operative member also loses something. Further, the other member of the cooperative may be made liable for the loan (co-signer). These conditions provide monitor incentives for the non-borrowing member. Since the borrower may default, the return to lending (incentive for the co-signer) inside the cooperative must compensate the non-borrowing member for the risk that he bears. Thus, the interest rate that the non-borrowing member (co-signer) charges over his loan to the borrower must be at least as high as the non-borrower's opportunity cost of funds allowing for the possibility of default. A high enough interest rate can provide an incentive for the non-borrowing member to be a co-signer. [105]

I believe that the enforcement costs can also be lower for an organization that uses a co-signer. The co-signer most likely will apply social sanctions against the borrower if he refuses to repay the loan. This could be compared to the theory of group lending; this theory assumes that group members will monitor each other and enforce repayment on each other because they can be hold liable for each other's loan. The difference is, however, that the housing programs supply loans to individuals (the co-signer does not borrow) and not to groups.

Mandatory savings can be used as a collateral substitute. Savings can be proof of the borrower's ability to repay a loan and at the same time it can serve as collateral. Not one of the programs indicated that they use mandatory savings as a form of collateral. CEPAD and AFODENIC believe that their clients would never be willing to cooperate with a mandatory savings program.[106] Another reason for not using mandatory savings could be that microfinance of housing products are relatively large (compared to microenterprise loan products) and it is hard to build up savings that will equal the loan size. Therefore, mandatory savings could very well be used as a supplement to another form of collateral to increase the psychological pressure.

---

[103] <URL: http://www.lcweb2.loc.gov>
[104] Banerjee, *et al.* (1994), 'The Neighbor's Keeper: The Design of a Credit Cooperative with Theory and a Test'
[105] If, however, the microfinance of housing programs use this model was not verified during the interviews.

§ 7.2 Sanctions

When a client is unwilling to repay a loan, an organization has to enforce the repayment by taking sanctions. Which sanction an organization takes is very important because it can have a tremendous influence on the repayment rate of the organization. It can not only enforce a client to repay a loan, but at the same time it can send out a message to the other clients of what happens if a person does not repay a loan.

CEPAD uses a standard mortgage for their construction loan products and they use a co-signer as collateral for their improvement loan products. They feel that the key aspect of collateral is that it ensures the organization that the loan can be repaid if the client is in default. Legal steps are taken if a client is in default. If there is a co-signer, he will be addressed to repay the loan of the client in default. If he refuses to repay the loan, legal steps will be taken against him as well. They believe that legal steps are expensive but that it is very important to follow this procedure, not only to ensure the repayment of their loan but also because it will maintain their credibility. Especially in the small rural communities, the neighborhood knows if a client is in default. If no sanctions are taken, this will send the wrong signal to other clients within the community.[107]

HABITAT uses standard collateral and in some cases, a co-signer. They believe that the psychological pressure they apply with these two forms of collateral is more important than the insurance that their loan will be repaid in case of default. Eventually, the collateral will never be retained if the client is in default. They feel that if they use a co-signer and the client is in default, it would not be fair to make the co-signer repay the loan because he is not to blame for the default. If a client is in default, they pay the delinquent client a visit or they will send leaders of the community and they try to convince the client to repay the loan. Sometimes they announce the name of the delinquent borrower through speakers in the neighborhood. [108]

The key aspect of the alternative forms of collateral that ACODEP uses is to put psychological pressure on the client. In case of default, two letters are sent. The first letter is to the delinquent client to warn him, the second letter is to the co-signer and states that he has to repay the loan if the delinquent client refuses to repay. The purpose of the second letter is that the co-signer will put more pressure on the delinquent client to repay the loan. If both refuse to repay the loan, legal steps are taken. But usually the loan is repaid after they have sent the two letters. [109]

The key aspect of the various forms of collateral CEPRODEL uses is to put psychological pressure on the client. To retain the collateral is truly their last resort. If a client is in default, CEPRODEL first

[106] Lescano (2002), CEPAD, Representative of microfinance of housing program (2002), AFODENIC
[107] Lescano (2002), CEPAD
[108] Padillo (2002), HABITAT
[109] Hernandez (2002), ACODEP

pays the delinquent client a visit. Second, they send the delinquent borrower a letter with a warning. Then, if the client is still unwilling to repay the loan, legal steps are taken.[110]

AFODENIC sends three warning letters if a client is in default. Then, if the client still is unwilling to repay the loan, they will take legal action. AFODENIC does not believe that legal steps are too expensive. They have a lawyer who works for them.[111]

Except for HABITAT, all the organizations will take legal action if necessary. The question is to which extent this is an effective means to achieve enforcement of the repayment of the loan. As discussed in chapter 3, the legal system and local law enforcement in Nicaragua may be subjected to corruption and political influence. But despite the possible inadequacies of the local law enforcement in Nicaragua, the organizations do use the legal system if necessary. Apparently they believe that it is an effective or maybe only means to enforce repayment as a last resort.

Motivations to repay

There are some general findings from the interviews concerning the motivations of a client to repay a loan. CEPAD, CEPRODEL and AFODENIC explicitly stated that the most important motivation is the fear that the organization will retain their collateral if the borrower defaults on his loan.[112] Second, HABITAT, CEPRODEL and CEPAD believe that the knowledge of the client that the fund is revolving and other Nicaraguan people can borrow if they repay their loan is also a very important motivation to repay a loan.[113] AFODENIC, ACODEP and CEPRODEL believe that another important motivation to repay a loan is that he has access to a second (successive) loan.[114] ACODEP uses this motivation for a dynamic incentives mechanism. Because AFODENIC, ACODEP and CEPRODEL have indicated that access to a successive loan is an important motivation to repay, it could be used effectively by more microfinance of housing programs. CEPRODEL, ACODEP, AFODENIC and HABITAT all believe that the social pressure from the community, if it is known who the client in default is, can be a third motivation to repay the loan. HABITAT uses the social pressure from the community and the social embarrassment as a means to make the delinquent borrower repay the loan. They believe that sending community leaders to the delinquent borrower is the most effective means to enforce repayment.[115] The other organizations do not deliberately announce the delinquent borrower in the community. But, they do believe that it is always known in the community who the client in

[110] Representative of microfinance of housing program (2002), CEPRODEL
[111] Representative of microfinance of housing program (2002), AFODENIC
[112] Representative of microfinance of housing program, (2002), CEPRODEL, Lescano (2002), CEPAD, Representative of microfinance of housing program (2002), AFODENIC
[113] Representative of microfinance of housing program (2002), CEPRODEL, Lescano (2002), CEPAD, Padillo (2002), HABITAT
[114] Representative of microfinance of housing program (2002), AFODENIC, Representative of microfinance of housing program (2002), CEPRODEL, Hernandez (2002), ACODEP
[115] Padillo (2002), HABITAT

default is and they believe that this can apply more pressure on the delinquent borrower to repay the loan.[116]

§ 7.3 Conclusions

This chapter demonstrated the following aspects of the use of enforcement and collateral of the microfinance of housing programs in Nicaragua.[117] For the smaller loans, anything can be used as collateral, as long as it is of value to the client. These collateral substitutes (e.g. electrical appliances) can also be used by microfinance programs. The microfinance of housing programs, however, often use a co-signer in addition. And, in contrast to microenterprise programs, there can be standard collateral available and realizable for the larger construction loans. However, 47% of the population lacks formal legal land title and these households hold various forms of para-legal land title. It is a very time and money-consuming process to obtain full-legal land title and the typical low- and moderate-income households cannot afford to spend their money on this process. CEPRODEL, ACODEP and AFODENIC use para-legal rights as collateral in case the borrower lacks full legal land title. In most cases, however, the organizations use standard collateral for the larger loan sizes.

Except for HABITAT, all the organizations will take legal action when a client is in default and they will eventually retain the collateral if they have to. HABITAT does not retain collateral and will not take legal steps in case of default. Compared to the other organizations, they put little effort in the collection of the repayment of a loan. The borrowers have little incentives to repay if there is a lack of enforcement from the organization. This could result in an increase of moral hazard and could be one of the reasons that HABITAT has the lowest repayment rate. CEPAD, ACODEP, CEPRODEL and AFODENIC do not deliberately announce the delinquent borrower, but they do believe that people in the community know if a borrower is in default. Therefore, one can conclude that for a high repayment rate one has to retain collateral or take other sanctions when a borrower refuses to repay: it maintains the credibility of the organization and could reduce moral hazard.

[116] Hernandez (2002), ACODEP, Representative of microfinance of housing program (2002), AFODENIC, Representative of microfinance of housing program (2002), CEPRODEL
[117] An overview of the facts can also be found in table 4, appendix 4

References

Armendariz de Aghion, Beatriz and Jonathan Morduch (2000), ‘Microfinance beyond group lending’, *Economics of Transition,* 8(2), pp 401-420.

Banerjee, Abhijit V., Timothy Besley and Timothy W. Guinanne (1994), ‘The Neighbor’s Keeper: The Design of a Credit Cooperative with Theory and a Test’, *The Quarterly Journal of Economics*, 109(2), pp491-515.

Ferguson, Bruce (1999), ‘Micro-finance of housing: a key to housing the low- and moderate-income majority?’, *Environment and Urbanization*, 11(1), pp185-199.

Ferguson, Bruce and Elinor Haider (2000), ’Mainstreaming microfinance of housing’, *Housing Finance International*, 15(1), pp3-17.

Ferguson, Bruce (2000), *Profile I Nicaragua,* project: Housing program.

Ferguson, Bruce (2001), *Profile II Nicaragua*, project: Low-income Housing Program.

Ghatak, Maitreesh and Timothy W. Guinnane (1999), ‘The economics of lending with joint liability: theory and practice’, *Journal of Development Economics,* 60, pp195-228.

Habitat for Humanity International (2002), *Construyendo Viviendas con el Pueblo de Dios*, Managua, Brochure of Habitat for Humanity International.

Klinkhamer, Madeleine (2000), *Microfinance Housing Products and Experience with Land Title as Collateral,* the Group for Home&Infrastructure Finance Inc.

Mishkin, F.S. (2000), *Financial markets and institutions*, USA: Addison Wesley Longman.

Morduch, Jonathan. (1999), ‘The Microfinance Promise’, *Journal of Economic Literature,* 37, pp1569-1614.

Robinson, Marguerite.S. (2001), *The Microfinance Revolution,*The World Bank, Washington.

Saunders, Mark, Philip Lewis and Adrian Thornhill (2000), *Research Methods for Business Students,* Harlow*:* Pitman Publishing.

Smets, Peer (1999), ‘Housing Finance Trapped in a Dilemma of Perceptions: Affordability Criteria for the Urban Poor in India Questioned’, *Housing Studies,* 14(6), pp821-838.

Wilkie, James, Eduardo Aleman and Jose Guadalupe Ortega (2002), *Statistical Abstract of Latin America*, Vol. 38, Los Angeles: UCLA Latin American Center Publications.

<URL:http://cf.heritage.org/index/country.cfm?ID=107>.

<URL:http://www.ccer-nic.org/jshape_2x/jshapep.htm>

<URL:http://www.lcweb2.loc.gov>

<URL:http://www.state.gov/documents/organization/8209.pdf>

APPENDIX 1 Organizations, Interviewees, Date and Place

1. Name organization: CEPAD
   Interviewee: Lescano, Roberto
   Date: 08-04-02
   Place: Managua

2. Name organization: HABITAT, Habitat for Humanity International
   Interviewee: Padillo, Ernesto
   Date: 09-04-02
   Place: Managua

3. Name organization: ACODEP, Asociacíon de Consultores para el Desarollo de la Pequeňa
   Interviewee: Hernandez Montiel, Gioconda
   Date: 11-04-02
   Place: Managua

4. Name organization: CEPRODEL, El Centro de Promoción del Desarrollo Local
   Interviewee: Representative of microfinance of housing program
   Date: 11-04-02
   Place: Managua

5. Name organization: AFODENIC, la Asociación para el Fomento al Desarrollo de Nicaragua
   Interviewee: Representative of microfinance of housing program
   Date: 24-04-02
   Place: Juigalpa

APPENDIX 2 Interview Questionnaire

1. Nombre
2. Fecha de constitucion
3. Objectivos.

    A Es el proyecto de prestamos para viviendas autosostenible

    B Si no, que parte de los gastos cubren con los ingresos del fondo

    C Que interes tienen uds. que mandar solo para cubrir los gastos
4. Cuanto es su cartera en mora mediana de los ultimos 3 anos
5. Cuando registra un prestamo como en mora
6. Que porcentaje de los prestamos nunca fue reembolsado

7. Que es el tamano minimo/maximo y mediano de los prestamos y en que moneda esta

    A Entre los mas pequenos prestamos y los mas grandes hay una differencia en cuanto al recuperacion
8. Que es el tipo de interes minimo/maximo/mediano
9. Hay differentes intereses por clientes con differentes capacidades de pago

    A Que es el interes maximo que sus clientes mas pobres pueden pagar
10. Hay un otro interes por clientes que han cumplido un prestamo anterior

    A Es eso un motivacion por los clientes de reembolzar el prestamo anterior
11. Como es el interes construido; mensual/annual, de saldo/total
12. Cuanto es la cuota mensual

    A Es constante durante el plazo del prestamo
13. Que es el plazo minimo/maximo/mediano

    A Depende el plazo de la capacidad de clientes

    B Entre prestamos de largo y de corto plazo hay una differencia en cuanto a recuperacion
14. Que parte de ingresos mensuales puede su grupo destinatario pagar a alojamiento
15. Como verifica la capacidad de los clientes
16. Para que se usan los prestamos: mejoramiento, nuevas casa, compra de terreno
17. Como explica el processe de prestar: reuniones, folletos, solo cuando el prestamo esta contractado

    A Cuales clientes faltan informacion

    B Occurre que clientes no reembolsan porque no entienden el processo de prestar
18. Presta a individuales, grupos o los dos

    A Si a los 2: que es el tamano de los grupos y de individuales

A Si a los 2: hay una differencia entre los 2 en cuanto a morosidad

19. Que son los criterios de seleccion: sexo, ingresos mensuales, buena historia financial, nivel de educacion, referencias, calidad de miembro de un organizacion, documentos officiales de propiedad, tiempo minimo de permanencia

    A Cual es mas importante y porque

20. Existe el riesgo que un grupo de clientes pierden sus ingresos (p.e. en caso de un bancarotta) y se trata de evitar este riesgo

21. Conece a nuevos clientes antes de contratar un prestamo

    A Si: por cuanto tiempo

    B A traves de que los conoce: iglesia etc.

    C Es bien conocer a los clientes para seleccionar los mejores clientes

    D Es bien conocer a los clientes para tener un relacion basado en confianza

    E Es malo conocer a los clientes porque resulta amiguismo

22. Que hace en caso de clientes que no conoce

    A Hace entrevistas (cuanto y que pregunta), busca otro informacion

23. Cuales documentos officiales exige

    A Encuentra problemas con los documentos en cuanto a: falsificacion, falta de identificacion official, nombres escritos incorrectos

    B Que hace en esos casos

24. Normalemente cuantos veces communica con el cliente

    A En que modo: telefono, le va a ver a el, el cliente va a ver a uds.

    B De que depende la frequencia de la communicacion: plazo del prestamo, capacidad del cliente, factores practicos (distancia, dinero), plazo de relacion con el cliente

    C Que pregunta o comprueba y porque

25. Hay reuniones con grupos de clientes

    A Que son los objectives de estos reuniones

26. Que tipo de garantia exige: propiedad de casa, confiador, garantia solidaria, sueldo, aparatos electricos, otro

    A Occurre mucho que clientes cumplen con todos los requisitos pero no tienen la garantia correcta

B Porque ha eligido esta garantia: (valor,otro)

C Que prueba de propieda exige y como lo comprueba

27. Que aspecto de la garantia es mas importante: pasar a la accion en caso de morosidad para recuperar los fondos, generar pression psicologico

28. Si presta a parejas, en nombre de quien tiene que estar la garantia y porque

A Occurre que personas desaparecen durante el plazo del prestamo

B Es la mayoria hombres

C Que hace en este caso

29. In caso de grupos:

A Que es el tamano de los grupos

B Son los grupos mixtos

C Que es el porcentaje mujeres en los grupos

D Quines forman los grupos, la organisacion o los clientes?

Organisacion:

E Como forma un grupo

F Que criterios considera importante para formar un grupo

(lo mismo nivel de educacion, lo mismo ingreso, parientes, empleo, redes, informales, otro)

G Porque

Clientes:

H Como forman los clientes un grupo

I Que criterios consideran ellos importante para formar un grupo (amigos, parientes, empleo, vecinos, iglesia, redes informales, otro)

J Considera Ud estos vinculos fuertes

K Porque

L Hay jefes en los grupos

M Tienen funciones directivas en la comunidad/ciudad

N Baja la presencia de ellos la cartera riesgo

O Pagan los otros clientes del grupo en caso de morosidad

P Excluyen los otros clientes del grupo la persona que no reembolsa de la comunidad, usan violencia, otro

Q Quantos veces occure esto

Q Baja el riesgo de la exclusion sociale la cartera de riesgo

R Baja el riesgo de otras medidad de grupo la cartera de riesgo

S Que medidas toma Ud quando un cliente del grupo no reembolsa

T Que porcentaje reembolsa despues de las medidas que los otros clientes o la organisacion han tomado

U Que es mas importante: la presion sociale del grupo que asegura el reembulso o la garantia solidaria de los otros clientes del grupo

30. En caso de un confiador :

    A Que son: familia, vecinos, amigos del clienta

    B Hay requisitos en cuanto a los vinculos entre el confiador y el cliente

    C Hay criterios de seleccion por los confiadores y que son: ingresos etc

    D Como los verifica

    E Cuantos veces occurre que el confiador tiene que pagar

    F Occurre que el confiador se niega a pagar

    G Que hace en este caso

31. En caso de un confiador que es mas importante: generar pression, la certezia que el prestamo sera reembolzado
32. Que medidad toma en caso de mora: cartas informales, visitas informales, medidas jurodocas

    A Son medidas juridicas demarciada caras

33. Cual porcentaje de clientes vuelve a reembolsar despues de cada medida
34. Como arregla los pagos en caso de mora: existe un esquima fija, depende de capacidad

    A Como verifica la capacidad del cliente

35. Que es el motivo mas importante de morosidad: perdida de ingresos, gastar demarciado dinero (addictos), indifferencia, otro

    A Que porcentaje es mujer y que es hombre

36. Es conocido quien no reembolsa

    A Anuncia quien no reembolsa

    B Que porcentaje vuelve a reembolzar despues de que se lo haga conocido

37. Ofrece acceso a siguentes prestamos

    A Cuantos cliente usan esta possibilidad

38. En caso de interes sobre el saldo: pueden los clientes reembolsar antes para bajar el saldo

    A Hay muchos clientes que usan esta possibilidad

39. En caso de construccion de casas, asegura que expansion de la casa es possible

    A Quien constuye la casa

    B En caso de clientes: baja esta hecho la morosidad

40. Existen otros fuentes de fondos de que los clientes pueden prestar
41. Que es el tipo de interes de ellos
42. Occurre que clientes obtienen otros prestamos

    A Crea problemas con el reembolsar y que son

43. Pueden ustedes llegar a su grupo destinatario gracias a:
    - el uso de distinctos aplicaciones en cuanto a motivacion, garantia etc.
    - la seleccion de un grupo realista en cuanto a capacitacion
    - el ofrecimiento de distinctos condiciones del prestamo

APPENDIX 3 Supplementary questionnaire

Explicación:

- Hemos construido estas preguntas para estandarizar y comprobar la información que ustedes nos han dado.
- Todas las preguntas se tratan de préstamos para la construcción de nuevas viviendas. Si ustedes estan haciendo proyectos y ustedes han ejecutado mas proyectos, eligalo sobre el cual usted tiene más información.
- En caso de las preguntas cuantitativas, si usted no tiene información exacto, usted puede dar una estimación. Si no lo sabe, no responda. Todas las preguntas se tratan del último año sobre el cual usted tiene información.
- Usted tiene que responder a todas las preguntas que utilizan el rango (pregunta 16 hasta 25). Importa si usa la medida de que se trata la pregunta, pero lo que importa mas es como usted pesa cada afirmación. Cada pregunta usted puede usar cada número mas que una vez.

1. Cuando empezó el proyecto:
2. Año o años sobre que se trata la información cuantitativa:
3. Cuantos prestamos estan ubicado:
4. El préstamo es para: *construcción de viviendas / compra de terreno y construcción de viviendas*
5. Tamaño promedio de los préstamos:
6. Plazo promedio:
7. Sus clientes viven en: *lugares rurales /urbanos / ambos*
8. Prestar a clientes en lugares rurales es mas arriesgado porque: *ellos no tienen ingresos estables si/no / porque es mas probable que ellos pierden sus ingresos si/no*
9. Autosostenibilidad operacional (cobertura de todos los gastos): si / no
10. Autosostenibilidad financial: fondos del mercado / donado
11. Cartera en mora: (despues de cuantos pagos atrasados:)
12. Cartera en riesgo: (despues de cuantos pagos atrasados:)
13. De los clientes en mora, que % es en: *los primeros 2 años del plazo … / en el tercero ó cuarto año … / última parte …*
14. Porcentaje de casos de embargo de la garantia:
15. Que son la(s) garantias(s) requeridas:

Indica, usando esta escala: 0=falso, 1=no importante, 2, 3, 4, 5=muy importante, 6= no sé, que piensa de la relación entre la pregunta y las respuestas

16. Que son las razones para usar una garantia hipotecaria: *unica garantia con suficiente valor … / requisito légitimo … / cliente tiene mas unión con su casa/terreno … / otra …*

Solo responda cuando el crédito solo es para la construcción de vivienda

17. Que % de personas que solicitan por crédito no estaban eligido porque no tuvieron un titulo oficial de terreno:

18. Que es el valor de la garantia hipotecaria (después de la construcción): *valor del terreno … / valor de la casa …*

Indica, usando esta escala: 0=falso, 1=no importante, 2, 3, 4, 5=muy importante, 6= no sé, que piensa de la relación entre la pregunta y las respuestas

19. Que son las razónes para no usar una garantia solidaria (grupos): *los clientes no se lo gusta … / usted piensa que sus clientes son demasiado individuales … / el tamaño de los pagos es demasiado grande, los miembres de un grupo no pueden pagar mas que sus propios pagos … /el hecho que castiga los buenos clientes … / no funciona porque estimula conducta errónea … / formar y servir los grupos cuestan demasiado trabajo … / no es necesario porque existe otra garantia … /otra …*

Indica, usando esta escala: 0=falso, 1=no importante, 2, 3, 4, 5=muy importante, 6= no sé, que piensa de la relación entre la pregunta y las respuestas

20. Que son las razones para usar un confiador: *no existe una otra garantia … / para generar mas présion … / usa como referencia … / la otra garantia no tiene suficiente valor … / otra …*

21. Que son las razones mas importante para no usar una sistema en que los clientes potenciales forman un fondo de ahorros que puede servir como garantia: *es demasiado difícil de lograr a un tamaño suficiente grande si/no / los clientes no quieren cooperar en cuanto a un sistema de tipo solidario si/no / otra …*

22. Que son las razones mas importante para no usar una sistema en que los clientes potenciales ahorran para asegurar que los clientes tienen suficiente motivación: *no importa porque estamos seguros que los clientes tienen suficiente motivación si/no / los clientes no lo quieren si/no / otra …*

Indica, usando esta escala: 0=falso, 1=no importante, 2, 3, 4, 5=muy importante, 6= no sé, que piensa de la relación entre la pregunta y las respuestas

23. Que son las motivaciónes mas fuertes para reembolsar: *el conocimiento que pueden perder la garantia … / el conocimiento que otras personas pueden prestar cuando ellos reembolsen … / el conocimiento que pueden contraer un segundo préstamo después de que reembolsen … / la presión social de la communidad … / otra …*

Indica, usando esta escala: 0=falso, 1=no importante, 2, 3, 4, 5=muy importante, 6= no sé, que piensa de la relación entre la pregunta y las respuestas

24. Tener vinculos estrechos con los clientes: *es bueno porque genera confianza … / es demasiado caro de construir … / no importa porque estar firme con los clientes es mas importante … / es malo porque resulta en mala selección …*

Indica, usando esta escala: 0=falso, 1=no importante, 2, 3, 4, 5=muy importante, 6= no sé, que piensa de la relación entre la pregunta y las respuestas

25. Ofrecer differentes sistemas de pago (mensual, quincenal, otra) es importante: *porque los ingresos de los clientes tienen differentes frequencias … / porque se lo da a los clientes el sentido que su opinión vale y esto resulta en mas respecto … /otra …*

26. Ingresos promedios de los clientes:
27. De sus clientes que % son mujeres:
28. De sus clientes en mora que % son mujeres:

APPENDIX 4 Overview of five microfinance of housing programs

Table 4 Overview of five microfinance of housing programs

	CEPAD	HABITAT	ACODEP	CEPRODEL	AFODENIC
FoundationDate	2001	1992	1998	1990	1998
Type of Institution	NGO	NGO	NGO	NGO	NGO
Mission	"Help develop the communities, the housing conditions and the economic capacity of their clients"	"Like an expression of Christian love, we develop communities with the Nicaraguan families by self-construction of basic, secure houses."	"Improve housing, embody the woman in productive activities, help develop the enterprise and economic capacity of the clients"	"Contribute, in cooperation with the population, to alleviate poverty by credit programs and local projects (develope possibilities for people to participate in improving living conditions"	"Give answer to the need for houses in Juigalpa"
Loan Product(s)	Improvement and Construction	Construction	Improvement and Construction	Improvement and Construction	Construction
Repayment Rate	unknown	90%	97%	97%	95%
Loan Sizes	\$500 - \$1500 \$1500 - \$2000	\$2700 - \$3200	\$500 - \$750 \$3000 - \$5000	\$200 - \$500 \$4000 - \$5000	\$1500 - \$2000
Loan Term	max 36 months max 6 years	fixed 10 years	24 – 48 months 5 – 10 years	max 36 months max 7 years	fixed 6 years
Interest Rate	12%	0%	17,63%	12%	6%
Level of Sustainability	operational	none	operational	operational	operational
Main Objective	Outreach	Outreach	Outreach	Impact	Outreach

	CEPAD	HABITAT	ACODEP	CEPRODEL	AFODENIC
Selection Criteria	For both loan Products: - a minimum monthly income of $107 - a maximum monthly income of $214 - a minimum residence of 5 years within the same place. For the construction loans: - land ownership	- fixed income, with a min. monthly income of $142 - max. monthly income of $285 - min. length of employment of 3 years - employer's statement - minimum household of three persons - no other house - land ownership	For both Loan Products: - steady income - minimum length of employment of one year For the construction loans: - land ownership - minimum monthly income of $150	For both loan Products: - minimum residence of one year - good community references For loan sizes above $1000: - land ownership	- minimum monthly income of $142 - a previous small loan which is successfully repaid - No other house - Land ownership
Collateral	- co-signer - house and land with full-legal land title	- co-signer - house and land with full-legal land title	- anything of value - co-signer - house and land with full-legal/para-legal land title	- anything of value - co-signer - house and land with full-legal/para-legal land title (+furniture)	- co-signer - house
Sanctions	- retain collateral - address co-signer - legal action	- send community leaders announcement	- retain collateral - address co-signer - legal action	- retain collateral - address co-signer - legal action	- retain collateral - address co-signer legal action
Repayment Motivations	1. fear of retaining collateral 2. knowledge of revolving funds	1. fear of retaining collateral 2. knowledge of revolving funds 3. social pressure	1. fear of retaining collateral 2. access to successive loan 3. social pressure	1. fear of retaining collateral 2. knowledge of revolving funds 3. access to successive loan	1. fear of retaining collateral 2. access to successive loan 3. social pressure

Sources: own research and data gathered from interviews with representatives of housing programs of CEPAD, HABITAT, ACODEP, CEPRODEL and AFODENIC.

Publications[118]

EC 96 E. Beumers, *Beslissende (f)actoren voor hennepteelt, onderzoek naar het achterwege blijven van hennepteelt voor de papierindustrie in de Veenkoloniën*, 1997.
EC 98-I K.J. Driessen, *Internationale uitbesteding door de KLM*, 1997.
EC 98-II A.M.S. den Ouden, H.B.G. Gelling, *Economische betekenis van een groeiend Schiphol voor bedrijven*, 1997.
EC 99 M.B.W. Hazewinkel, R.T. Postma, *Financiering monumentenzorg, onderhoud versus restauratie*, 1997.
EC 100 R. Enting, *Subsidieverdeling voor het stads- en streekvervoer: doelstellingsbewust?*, 1997.
EC 101 R. Schultink, *Lokale Agenda 21, beleid en indicatoren voor duurzaamheid*, 1997.
EC 102 drs. F.J. Sijtsma, drs. D. Strijker, M.L.A.W. Hoefsloot, *Duurzame ontwikkeling in het Waddengebied, een methode voor het afwegen van economie, natuur, milieu en landschap*, 1998.
EC 103 drs. M.J.H. van Onna, *Kwaliteitsmeting in de economische wetenschap, een goede econoom is meer dan een goede onderzoeker*, 1998.
EC 104 A. Heine, M. Maatman, *Maatschappelijk verantwoord ondernemen, een analyse van de jaarverslagen van de 25 grootste Nederlandse ondernemingen*, 1998.
EC 105 R. Hilgenga, *Kennisvergroting in het Roemeense midden- en kleinbedrijf, de rol van de ontwikkelingsprogramma's van de Europese Unie*, 1998.
EC 105 ing. K. Bettels, drs. F.J. Sijtsma, *Het Emssperrwerk, een evaluatie op duurzaamheid van een waterkering in de Ems*, 1998.
EC 107 J.W. Boven, *Markt voor natuurvoeding: een supermarkt, de toekomstige ontwikkeling van het netwerk van biologische voedingsmiddelen*, 1998.
EC 108 J. Idema., *Stock Markets in Transition Economies, the case of the Tallinn stock exchange, Estonia*, 1998.
EC 109 P.A.M. Lohle, *Arbeidspool, een (arbeidsmarkt)instrument om flexibiliteit en bestaande zekerheid te combineren*, 1999.
EC 110 A.P. Postma, drs. F.J. Sijtsma, drs.T.M. Stelder en drs. D. Strijker, *De concurrentie-kracht van Weststellingwerf, een economisch-ruimtelijk perspectief*, 1999.
EC 111 R. de Veer, *Bank stability in transition economics, case study Estonia*, 1999.
EC 112 R.J. Suhlman, m.m.v. drs. F.J. Sijtsma, *Financiering van monumentale kerken – Verkenning van de effecten van overheidsbeleid*, 1999.
EC 113 H. Dijk, *Ware Woorden of Schone Schijn? – De betrouwbaarheid van uitlatingen over Maatschappelijk Verantwoord Ondernemen*, 1999.
EC 114 W. Dijkstra, *Water zonder grenzen, internationalisering van de Nederlandse watersector*, 1999.
EC 115 R.P. Brouwer en O.P. Smid, *Magnesiumproductie in de Eemsmond, vorming van clusters van bedrijvigheid rondom magnesiumproductie*, 1999.
EC 116 A.P. Postma, *Ecologische voetafdruk, betekenis en bruikbaarheid*, 2000.
EC 117 G. Ypma, *Een onderzoek naar streekgbonden producten in het Waddengebied*, 2001.
EC 118 G. Molema en P. Olthof, *Vermarkting van dorplandschappen*, 2001.
EC 119 D. de Jong, *Verstand van Zaken? - Over wetenschap, waarheid en verwaring*, 2001.
EC 120 E. Bruning, S.Jansen, M. Kasper, drs. E. Kamphuis (red.), *Formule Trendbreuk voor EKO-verkoop: Trendy of Trend?*, 2001.
EC 121 M. Broekhof, *Transparency in the pharmaceutical industry - a cost accounting approach to the prices of drugs*, 2002.
EC 122 E. Kamphuis, *Organic Flower Bulbs from Holland, Outlook for the French Market*, 2002

[118] Publicaties in de reeks Publicaties van de Wetenschapswinkel voor Economie hebben een EC nummer, krijgen een ISBN nummer en worden uitgebracht op klein formaat, gebonden.
Publicaties uitgebracht in de werkdocumenten reeks hebben een WD nummer, krijgen geen ISBN nummer en worden uitgebracht op A4 formaat met een metalen ringband.

EC 123 B. Hilbrands, J. van Veen, drs. E. Kamphuis (red.), *Gastouder gezocht! Strategieën voor kleinschalige en flexibele kinderopvang*, 2002.
EC 124 A.W. Brouwer, D. Dijkema, *Microfinance Dilemma: The Case of Bandung, Indonesia*, 2002.
EC 125 D. Kuipers, *Bouwen aan duurzaamheid, een onderzoek onder Nederlandse gemeenten naar de invoering van de statiegeldregeling voor het stimuleren van duurzaam bouwen op vrije kavels,* 2002.
EC 126 drs. F.J. Sijtsma, drs. P. Hogendoorn, drs. G. J. Hoogstra, drs. C.-J. Pen, prof. dr. P.H. Pellenbarg m.m.v. Sytse Duiverman, *Uitgifte van bedrijventerreinen op het Friese platteland*, 2002.
EC 127 Rinze Anne van der Sluis, *Tussen Mens en Machine, Over de toegankelijkheid van het betalingsverkeer in relatie tot ouderen*, 2002.
EC 128 Michiel Nijboer, *Maatschappelijk Verantwoord Ondernemen in Fryslân. Omgaan met stakeholders in theorie en praktijk*, 2003.
EC 129 Leon Boerboom, *Maatschappelijk Verantwoord Ondernemen in Fryslân. Een analyse van de jaarverslagen van 16 grote Friese bedrijven*, 2003.
EC 131 Renate Bieleman, *Maatschappelijk Verantwoord Ondernemen in Fryslân. Een analyse van de berichtgeving over bedrijven in de krant*, 2003.
EC 132 Elisa Ninke Staal, *Microfinance of Housing. The Case of Nicaragua*, 2003.

Werkdocumenten
WD 2000-1 drs. Frans J. Sijtsma, Prof. dr. P.H. Pellenbarg en drs. K.G. Lugtenborg, *Naar een goed besluit over vier Friese musea*, 2000.
WD 2000-2 drs. Elise Kamphuis (red.), *Komt EKO van de grond?, De verwerkingscapaciteit van biologische producten in Noord Nederland*, 2000.
WD 2000-3 dr. D. Strijker, Prof. dr. D.-J.F. Kamann, drs. F.J. Sijtsma, *Bioraffinage in Noord-Nederland*, 2000.
WD 2001-1 U. Futh, drs. F.J. Sijtsma, *Nieuwe kansen voor de Nijkans. Mogelijkheden voor kuuroord spin-off bij de ontwikkeling van het bedrijfsterrein de Nijkans in Nieuweschans*, 2001.
WD 2001-3 H. Tschochohei, *Do people in developing countries have limited access to essential drugs? The pattern of global supply of pharmaceuticals*, 2001.
WD 2001-4 C. Boersma, *Economic issues of antimalarial diagnostics and therampeutics in sub-Saharan Africa*, 2001.
WD 2002-1 drs. F.J. Sijtsma, M. Broekhof, Prof. dr. J. van Dijk, drs. G.J. Hoogstra, *IKO en PRIKK: Stimulans voor economische activiteit op het Fries-Groningse platteland? Een evaluerend onderzoek naar de IKO en PRIKK regelingen voor investeringen van het kleinbedrijf*, 2002.
WD 2002-2 drs. F.J. Sijtsma, drs. P. Hogendoorn, drs. G. J. Hoogstra, drs. C.-J. Pen, prof. dr. P.H. Pellenbarg m.m.v. Sytse Duiverman, *Bijlagenrapport bij Uitgifte van bedrijventerreinen op het Friese platteland,* 2002.
WD 2002-3 Bauke Visser, *Bedrijventerreinen tussen droom en daad: Symbioses en utility sharing. Samenwerkingsverbanden op bedrijventerreinen vanuit een bedrijfskundig perspectief,* 2002.
WD 2002-4 Renate Bieleman, Leon Boerboom, Michiel Nijboer, Jacob de Vries, drs. Frans J. Sijtsma (redactie), *Maatschappelijk Verantwoord Ondernemen in Fryslân, Samenvatting*, 2002.